Effective delivery of care to patients with serious mental illness and physical disease: ensuring parity of esteem and parity of care

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Professor in Diabetes & Endocrinology
Managing complex long term conditions (LTC) and multi-morbidity conference
Royal College of Physicians 18 February 2016

I have received fees for lecturing, consultancy work and attendance at conferences from the following companies: Boehringer Ingelheim, Eli Lilly, Janssen, Lundbeck, Novo Nordisk, Novartis, Otsuka, Sanofi, Sunovion, Takeda, MSD
Central obesity

Insightful psychiatrist recognising the importance of a health lifestyle
Overview

- Physical illness in People with Severe Mental Illness
- Barriers to high quality physical health care
- Overcoming the barriers
Medical co-morbidity with schizophrenia

- Tuberculosis
- HIV
- Liver disease
- Osteoporosis
- Poor dental status
- Chronic lung disease
- Sexual dysfunction
- Movement disorders
- Breast cancer
- Obstetric complications
- Hyperprolactinaemia
- Cardiovascular problems
- Obesity
- Diabetes
- Dyslipidaemia
- Thyroid dysfunction

Physical Co-morbidity with Schizophrenia

![Bar chart showing the percentage of co-morbidities in schizophrenia and healthy control groups.](https://example.com/figure.png)

- **Schizophrenia**
- **Healthy control**

<table>
<thead>
<tr>
<th>Number of Co-morbidities</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>40%</td>
</tr>
<tr>
<td>1</td>
<td>20%</td>
</tr>
<tr>
<td>2</td>
<td>10%</td>
</tr>
<tr>
<td>≥3</td>
<td>5%</td>
</tr>
</tbody>
</table>

*p < 0.001*

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Men</th>
<th>Difference from male UK population</th>
<th>Women</th>
<th>Difference from female UK population</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Any serious mental illness</strong></td>
<td>64.5 (63.3 – 65.6)</td>
<td>-12.9</td>
<td>69.9 (68.7 – 71.0)</td>
<td>-11.8</td>
</tr>
<tr>
<td><strong>Schizophrenia</strong></td>
<td>62.8 (61.6 – 64.1)</td>
<td>-14.6</td>
<td>71.9 (71.0 – 72.8)</td>
<td>-9.8</td>
</tr>
<tr>
<td><strong>Bipolar disorder</strong></td>
<td>67.3 (66.1 – 68.5)</td>
<td>-10.1</td>
<td>70.4 (69.5 – 71.4)</td>
<td>-11.2</td>
</tr>
<tr>
<td><strong>Depression</strong></td>
<td>66.8 (65.6 – 67.9)</td>
<td>-10.6</td>
<td>74.4 (73.5 – 75.3)</td>
<td>-7.2</td>
</tr>
</tbody>
</table>

2007–09 (N=31,719)
Chang C-K et al. (2011) PLoS ONE 6(5): e19590. doi:10.1371/journal.pone.0019590
Life expectancy of people with schizophrenia

Denmark 1980 - 2010

Excluding intentional self-harm as a cause of death
Mortality affects young adults disproportionately.

75% die from natural causes.
33-60% die from CVD.

Overview

- Physical illness in People with Severe Mental Illness
  - Why is physical illness more common?
- Barriers to physical health care
- Overcoming the barriers
Hypothalamic-pituitary-adrenal axis dysfunction

Insulin resistance

Inflammation

Sleep/circadian rhythm disruption

Common interrelated biological pathways

Physical Illness

Mental Illness

Genetics

Fetal development

Childhood adversity

Poverty and Poor Neighbourhood Environment

Poor health behaviours

Holt et al Curr Diab Rep (2014) 14:491
Physical Illness

Mental illness

Psychotropic Medication
- Weight Gain
- Metabolic Disturbance
- Endocrine Effects
- Cardiac Effects
- Movement Disorders

Physical Illness

Altered motivation
Overview

• Physical illness in People with Severe Mental Illness

• Barriers to high quality physical health care

• Overcoming the barriers
Over-shadowing

HCPs focus solely on their mental disorder and fail to take note of physical health needs.

## Monitoring of CVD risk factors in UK National Audit of Schizophrenia

<table>
<thead>
<tr>
<th>Factor</th>
<th>Percentage</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking</td>
<td>89%</td>
<td></td>
</tr>
<tr>
<td>Blood pressure</td>
<td>61%</td>
<td></td>
</tr>
<tr>
<td>BMI</td>
<td>52%</td>
<td>5% - 92%</td>
</tr>
<tr>
<td>Glucose</td>
<td>57%</td>
<td>16% - 99%</td>
</tr>
<tr>
<td>Lipids</td>
<td>57%</td>
<td></td>
</tr>
<tr>
<td>All five risk factors</td>
<td>33%</td>
<td></td>
</tr>
<tr>
<td>All five risk factors in those with existing CVD</td>
<td>37%</td>
<td></td>
</tr>
</tbody>
</table>

Physical illness is less well recorded

<table>
<thead>
<tr>
<th>Condition</th>
<th>Schizophrenia N (%)</th>
<th>Healthy controls N (%)</th>
<th>Adjusted OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viral hepatitis</td>
<td>33 (0.3)</td>
<td>1,142 (0.1)</td>
<td>3.98 (2.81 to 5.64)</td>
</tr>
<tr>
<td>Constipation</td>
<td>873 (9.0)</td>
<td>35,543 (2.5)</td>
<td>3.24 (3.00 to 3.49)</td>
</tr>
<tr>
<td>Parkinson’s disease</td>
<td>73 (0.8)</td>
<td>2,668 (0.2)</td>
<td>3.07 (2.42 to 3.88)</td>
</tr>
<tr>
<td>Epilepsy</td>
<td>213 (2.2)</td>
<td>12,171 (0.9)</td>
<td>2.42 (2.11 to 2.77)</td>
</tr>
<tr>
<td>Cancer</td>
<td>288 (3.0)</td>
<td>43,376 (3.1)</td>
<td>0.81 (0.72 to 0.91)</td>
</tr>
<tr>
<td>Coronary heart disease</td>
<td>579 (5.9)</td>
<td>80,888 (5.7)</td>
<td>0.75 (0.69 to 0.82)</td>
</tr>
<tr>
<td>Hypertension</td>
<td>1,551 (16.0)</td>
<td>232,763 (16.5)</td>
<td>0.71 (0.67 to 0.76)</td>
</tr>
<tr>
<td>Atrial fibrillation</td>
<td>137 (1.4)</td>
<td>23,839 (1.7)</td>
<td>0.62 (0.51 to 0.73)</td>
</tr>
</tbody>
</table>

Adjusted for age, gender and deprivation
• Less likely to be examined for eye or foot complications
  – Despite more clinic visits
• Less likely to be screened for HbA$_{1c}$ or cholesterol
• Received less education
• Less likely to receive a statin
Access to interventional cardiology services in Western Australia

Guidelines

Consensus Development Conference on Antipsychotic Drugs and Obesity and Diabetes

American Diabetes Association
American Psychiatric Association
American Association of Clinical Endocrinologists
North American Association for the Study of Obesity

Review
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)

M. De Hert b,*, J.M. Dekker b, D. Wood c, K.G. Kahl d, R.I.G. Holt e, H.-J. Möller f
# Recommended screening for CVD risk

<table>
<thead>
<tr>
<th>Medical History</th>
<th>Baseline</th>
<th>3 months</th>
<th>Annually</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Weight</td>
<td>✓</td>
<td>Every visit during 1\textsuperscript{st} 6-8 weeks of treatment. At least quarterly thereafter</td>
<td>✓</td>
</tr>
<tr>
<td>Blood pressure</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Glucose*</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>HbA\textsubscript{1c}</td>
<td>✓</td>
<td>(✓)</td>
<td>✓</td>
</tr>
<tr>
<td>Lipid profile</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>ECG</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

*Either fasting or random. oGTT only rarely indicated
Beware HbA\textsubscript{1c} may be normal if glucose is changing rapidly

The effect of the ADA and FDA guidance

Percentage of patients receiving glucose screening

ADA/APA Consensus Statement

FDA warning letter/campaign

The effect of the ADA and FDA guidance

Percentage of patients receiving glucose screening

ADA/APA Consensus Statement

FDA warning letter/campaign

Any
Baseline

Barriers to screening

• Lack of clarity about whose responsibility it is
• Lack of understanding about what should be measured and when
• Lack of confidence in interpreting results
• Lack of access to necessary equipment

Les Passions de l’Ame.

Par

Rene des Cartes.

A Paris,

Chez Henry Le Cur, au troisième Pilier de la grand’ Salle du Palais, à l’couronnée

M. D. C. L. IX.

Avec Privilège Du Roy.

1649
Overview

- Physical illness in People with Severe Mental Illness
- Barriers to high quality physical health care
- Overcoming the barriers
The greatest mistake in the treatment of disease is that there are physicians for the body and physicians for the soul, although the two cannot be separated.

Plato circa 370 BC
Collaborative care model

- Team approach to patient and disease management
- Case manager focuses on individual patient needs
- Utilises stepped care treatment approaches

Overview

- Physical illness in People with Severe Mental Illness
- Barriers to high quality physical health care
- Overcoming the barriers
  - Consider antipsychotic treatment
Hieronymus Bosch, Curing Folly
removing the stone of madness
_c.1475-1480_

Benjamin Rush
Tranquilizer

Emil Kraepelin, _Psychiatrie_, 5th edition 1896
Number of psychiatric hospital beds
England 1900 - 2000
Total Mortality vs. Cumulative Use of Specific Antipsychotics

Relative risk of death compared with perphenazine

- Perphenazine
- Risperidone: 1.12 (0.82–1.53)
- Quetiapine: 1.54 (1.04–2.29)
- Clozapine: 0.83 (0.65–1.07)
- Olanzapine: 0.74 (0.45–1.22)
- Haloperidol: 1.12 (0.82–1.53)
- Thioridazine: 1.10 (0.91–1.34)

**Antipsychotics**

- Epidemiological data would suggest switching to a drug with less propensity to weight gain may help weight loss.

- Few trials have assessed this:
  - Switching from olanzapine to either quetiapine, aripiprazole and lurasidone is associated with weight loss.
  - Addition of aripiprazole to clozapine or olanzapine is associated with weight loss.

Overview

- Physical illness in People with Severe Mental Illness
- Barriers to high quality physical health care
- Overcoming the barriers
  - Support lifestyle modification
What influences behaviour change?

Knowledge

Motivation

Skills

Behaviour change
Facilitators for lifestyle change

- Tailored and flexible programme design
  - Practical and experiential learning

- Long-term and on-going support
  - Peers, family, friends and carers

- Delivered in familiar locations
- Dedicated, sensitive and well trained staff
- Realistic, achievable goals
- Free or low-cost activities

Salford weight management clinic

Data are mean ± standard error

Number

0 142
1 64
2 35
3 25
4 18
5 14
6 7
7 6
8 4

Years after enrolment onto programme

Holt et al J Clin Psych 2010
Overview

- Physical illness in People with Severe Mental Illness
- Barriers to high quality physical health care
- Overcoming the barriers
  - Do the simple things well
Summary

• Severe mental illness is associated with increase physical morbidity and premature mortality

• Health services barriers mitigate against high quality physical health care

• Reducing the health inequality requires a multi-disciplinary approach to do the simple things well
Any questions?

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