Severe Mental Illness and Diabetes

Charlie Place
Intro

- Me – Community Mental Health Nurse
- Case manager for Assertive Outreach Team in Leeds
- Severe Mental Illness (SMI) – usually diagnosis of schizophrenia or bipolar affective disorder
SMI and physical health

- On average, those with SMI die at least 10 years younger (Joukamma, 2001, BJP, 179)
- Approx 1/3 excess mortality due to suicide
- 2/3 attributable to cardiovascular disease, respiratory disease and diabetes (Brown, 1997, BJP, 171)
- Leading cause of premature death is cardiovascular disease
Severe Mental Illness and Diabetes

- One in five people with a severe mental illness have diabetes (2006, All Parliamentary Group for Diabetes, Diabetes UK)
- Type 2 diabetes may be up to five times more common in those with SMI in comparison to the general population (2004, Consensus statement, British Journal of Psychiatry)
- Active screening of people with schizophrenia have found over 30% with impaired glucose tolerance or diabetes (Cohn, 2002)
- Little research into outcomes for people with SMI and diabetes – probably poor
Possible factors

• Lifestyle
• Genetic link
• Stress
• Antipsychotic medication – weight gain and medication itself
Lifestyle

- Socioeconomic deprivation
- Often overweight and physically inactive
- Smoke more
- People with SMI often have very poor diet
- High in saturated fat and sugar
- Less likely to eat fibre, antioxidant vitamins, fruit and veg

(Peet, 2004, British Journal of Psychiatry, 184)
Genetic Link?

- “Diabetes is a disease which often shows itself in families in which insanity prevails” Sir Henry Maudsley, 1897
- Study of first-episode schizophrenia, 15% were found to have impaired fasting glucose tolerance
- Up to 30% of people with diagnosis of schizophrenia have a family history of diabetes
Stress

- **Objective stress** – deprivation, home environment, hospital
- **Subjective stress** – psychological experiences (distressing voices, being under threat etc)
- Stress of psychosis produces transient suppression of pancreatic beta cell function and alter insulin sensitivity
- Possible that stress makes people with SMI more vulnerable to effects of poor diet and lack of exercise

(Dinan, 2004, BJP)
Antipsychotics

- Atypical or Second Generation Antipsychotic (SGA) – eg olanzapine, risperidone
- “Old fashioned” antipsychotics – eg chlorpromazine, haloperidol
- NICE guidelines suggest use of atypical antipsychotics
- Atypicals create fewer problems with extrapyramidal side-effects
- Clozapine indicated for “treatment resistant” psychosis
Antipsychotics and weight gain

- Antipsychotics cause weight gain
- Several atypical antipsychotics particularly associated with weight gain, often 5 to 8 kilos (Healy, 2002, Psychiatric Drugs Explained)
- Olanzapine and clozapine lead to most weight gain (some people gaining up to 30% of initial weight)
- Clozapine > olanzapine > risperidone > quetiapine > aripiprazole
Antipsychotics diabetogenic?

- Some evidence that antipsychotics may lead to people developing diabetes
- Naturalistic study of 82 people prescribed clozapine reported 36% developed diabetes during first five years of treatment (Henderson et al, 2000, Am Journal of Psychiatry, 157)
- Report of people developing problems with glycaemic control *without* associated weight gain (Connolly and Kelly, 2005, Advances in Psychiatric Treatment, 11)
- Controversial claim
Antipsychotics

- Consensus is that weight gain caused by antipsychotics is the most important factor in increased risk of diabetes (Connolly and Kelly, 2005)
- Advice is that people should be screened before starting treatment, after three months, and annually (if no problems)
- Rarely happens?
- Evidence that diabetes related to antipsychotics can be reversed
Diane

- 27 year old woman
- Prescribed olanzapine 25mg and risperidone depot
- Has put on about ten kilos in six months
- Waist circumference – 148 cm
- BP – 160/110
- Blood glucose and cholesterol – we don’t know!
Mental Health Services

- Have given little consideration to physical health care
- Focus on risk assessment in other areas
- Knowledge / interest has been low in mental health professionals
- Study of inpatients prescribed antipsychotics less than half had been screened for diabetes (Taylor et al, 2004)
What we are doing?

- Starting from low baseline
- Build into the Care Programme Approach
- Trying to screen all our service users at least annually with random venous sample or at the very least fingerprick
- Actively encouraging lifestyle changes
- Piloting a diabetes “checklist” for CPNs to monitor and highlight problems
Primary Care

- People with SMI do not receive the increased level of care that would be expected in relation to risk.
- People with SMI in general practice were half as likely as people with asthma to have BP and cholesterol levels recorded (Roberts et al, Family Practise, 2007).
- The more serious the mental health problem, the greater the health inequality.
- Lack of clarity over responsibility.
Key Points

- People with SMI should be considered a high risk group for diabetes
- Person with SMI is more likely to die prematurely from cardiovascular disease than suicide
- Certain antipsychotics associated with weight gain
- Physical health care and routine screening has been poor for this group
- Mental health services are beginning to change!