Practical action to close mortality gap in patients with major psychiatric conditions: the case for a joint Primary Secondary strategy.

Abstract

This article discusses how to apply the ‘5 year forward view’ to close the mortality gap between the general population and people with major psychiatric conditions such as psychosis, autism, learning disability and dementia. Practicalities of organising community monitoring clinics are discussed, based on experience in Whitby (a rural area), compared with plans for a Care Collaborative in Sunderland (an urban conurbation). Potential national initiatives are summarised; a NHS smart card held by patients and carers for more flexibility, as well as nutritional supplementation to avoid cardiovascular and infectious diseases.

Context

The excess mortality in people with severe mental illness has been noted since 1928; a study in New York State showing mortality of psychiatric patients with schizophrenia or bipolar disorder being double that of the general population (1). This has been replicated in the UK recently (2) showing a marginal reduction of Schizophrenia and Bipolar Disorder mortality, but showing a widening gap with a matched general population cohort followed up between 2000 – 2014. Furthermore, a study involving Denmark, Finland and Sweden published in 1999, found a reduced life span of 20 years in men, 15 years in women (3). Similar findings have been noted amongst people with learning disability (4), Autistic Spectrum Disorder (5) and Dementia (6).

On causes of mortality among people with major psychiatric conditions, a retrospective study in Australia (7) showed that suicide accounted for 14% of the excess mortality. The other causes were cardiovascular disease (30%) and cancer (13%). The remaining proportion (40%) appears to be due to pulmonary embolism and community acquired pneumonia among people receiving second generation (atypical) antipsychotics (8), especially elderly residents in care homes. The pharmacology of atypicals is relevant; they have anti-inflammatory properties including reducing activation of microglia and macrophages (9).

There is continuing evidence of inappropriate prescribing atypical antipsychotics for (non-psychotic) challenging behaviour (10), with non-toxic measures including relief of pain and constipation ignored with limited or no discussion with patients and their carers of harmful effects (such as stroke and diabetes). This concern was expressed by the Care Quality Commission (CQC) following their 2 year inspections of all 56 mental health Trusts (11). The other concerns were,

• Inadequate joined up care with primary and acute services;
• Poor physical health care of psychiatric patients;
• Inadequate ‘co-production’ between patients, carers and clinicians on treatment plans
• Limited attempts to close the mortality gap.
The current NHS national quality and safety improvement strategy for mental health services, the 5 year forward view (12), has targeted closing the mortality gap as a key target to be delivered by 2021, involving 5 components; the final point being the direction of travel.

- Increased smoking cessation initiatives in the community;
- Mental health patients to be supported to access screening and smoking reduction;
- Mental health wards being entirely smoke free by 2018;
- Enhanced primary care services with secondary care input to meet physical and mental health needs of the population, including an accountable medical practitioner per patient

Challenges in physical healthcare monitoring

1. The main problem, as described by CQC (10), appears to be poor communication with primary care on what is expected as physical monitoring following discharge or as part of shared care. This is complicated by a majority of Primary Care group practices complaining of being ‘lumbered’ financially with prescribing and monitoring secondary care initiated medication without resources or training (11).

2. Furthermore, psychiatric patients with physical co-morbidities are more likely to have unplanned admissions (13). This pattern adds to intrinsic problems of communication existing between primary and secondary care (for example incompatible electronic records).

3. An associated problem is poor uptake by psychiatric patients of primary care generated monitoring (14). This could be due to patients perceiving that psychiatry is the single point of access when being prescribed psychotropic medication. Also, the need for physical health monitoring might not have been explained, including risks of non-participation.

4. Carer’s involvement in physical health monitoring is often not emphasised, due to issues of confidentiality (15) and non-disclosure of risks. In addition, perceived stigma probably plays a part; patients being embarrassed of being ‘told off’ in primary care for being obese and continuing to smoke.

5. The process of ‘trickle down’ funding has been repeatedly shown to be inefficient, with significant amounts of money lost during its progress down to the clinical coalface due to overheads and competing funding gaps. Furthermore, the QOF (Quality Outcome Framework) funding given to primary care to monitor patients on psychotropics is about 30% compared to QOF funding to monitor Diabetes for example, hence not seen as worth pursuing by primary carer business managers. This is despite the rate of Insulin resistance being higher in patients receiving antipsychotics; 15% compared to the general population of 2-5% (16). Increasingly, secondary care is provided financial relief in terms of CQUIN (Committee for Quality and Innovation) funding to provide physical health monitoring of patients on psychotropics. Currently there is limited willingness for
CQUIN and QOF budget holders to agree on pooling budgets, as there is no national directive to do so.

6. Diagnostic ‘overshadowing’ is increasingly recognised (17); with doctors under-recognising symptoms of physical disorder, and ascribing ‘somatic’ symptoms as part of the person’s psychiatric condition. Furthermore, there is evidence that physical examinations and routine investigations occur less often in psychiatric patients (18). The National Early Warning Score (NEWS) is recommended in secondary care for patient monitoring (19), but rarely used in the community, for example in care homes. This relative lack of objective measures can increase the likelihood of diagnostic overshadowing.

**Practice based quality improvement (The Whitby Project, 2003-5)**

This quality improvement project was initiated by the manager of the community mental health team (CMHT) in Whitby who worked with the practice managers of 6 surgeries covering Whitby town and North York Moors (population 26,000). This was part of a whole system transformation plan, involving joint multi-disciplinary work with primary care (20).

The problems identified were the logistics accommodating the 15 patients attending the CMHT for their depot antipsychotic, alongside the difficulty practice nurses faced monitoring patients on antipsychotics and mood stabilisers to achieve QOF thresholds.

The methodology used was a joint CPN / Practice Nurse clinic rotating between the 6 practices (with the same CPN), jointly monitoring all patients on anti-psychotics, including the 15 patients on depot medication, with all depots administered at the practices. Bloods, recordings of weight and blood pressure as well as the use of the Lunsers scale for extrapyramidal features were agreed beforehand.

It was envisaged for the practice nurses and CPN would learn from each other, so that the CPN could pull out in 18 months’ time, when Practice Nurses were confident of checking for side effects and noticing evidence of mental deterioration (for example self-neglect, insomnia, non-concordance). Each practice nominated a GP with mental health expertise, with prompt access to the Consultant if needed.

The main outcome after 18 months was that of the 15 depot patients, 1 returned to secondary care, with the remainder followed up by the practice nurses. The returnee was placed on Clozapine due to resistant psychosis, and moved to shared care. As a further agreement, the practices also agreed to carry out monthly blood monitoring of stabilised Clozapine patients (8 in all). As expected there were new diagnoses of hypertension and glucose intolerance among screened patients. The main ‘negative’ outcome for the CMHT was that the CPN was seen as surplus to requirements, and utilised elsewhere to set up collaborative working.


City wide quality improvement; a Multi-Speciality Provider

Sunderland City clinical Commissioning Group (CCG) is currently developing a Multi-Specialty NHS provider covering its total population of 274,000. This collaborative will be based in 5 hubs across the city, co-terminus with social services and ‘walk in’ primary care, and staffed by CPNs, Chronic Disease Nurses, Pharmacists and GPs with a special interest in managing mental and physical health as a whole (the accountable clinicians).

It is envisaged that the hubs would accommodate scenario based, multi-speciality training, complemented by consultant visits; both for education and ‘trouble shooting’ to avoid unplanned secondary care activity. The Acute and Mental Health Trusts are partners in the project alongside the local authority.

Sunderland could also trial the newly designed post of hybrid community consultant being considered by the Department of Health in collaboration with 3 Royal Colleges and the General Medical Council, with a 3 year period of specialist training involving 18 months in medicine, and the remaining 18 months split between general practice and psychiatry.

National Quality Improvement idea – a NHS smart-card

This idea, first mooted in 2005 (21), involved a patient / carer held smart-card containing an up to date data set and an allocated budget, to be used at a Darzi multi-disciplinary clinics (22) to reduce demands on secondary care due to chronic disease, including mental health conditions. A NHS smart-card would utilise CHIP & PIN safeguards, with a limited ‘back door’ access to be used in emergencies by paramedics and acute services. The data set would include a current problem list, cautions and medications, updated at each NHS consultation, using cloud technology back up in case the card is lost. Additionally, this system would also help transfers of care between hospital and community, without need for letters or telephone handovers.

The personal health budget would be allocated for ‘cold’ interventions, physical health monitoring and relevant prescribing. It would allow users to access any clinic accredited by the NHS. Overall, a NHS card bypass the problems caused by disparate IT systems and provides users real choice in terms of access (telephone booking, evening appointments) and quality (one stop shop including dietetics, exercise and activity options).

Changes to funding streams to build up universal excellence in monitoring.

Pooling mental health funding via QOF and CQUIN to a single budget is essential, to fund Darzi type multidisciplinary clinics for joined-up mental and physical health monitoring. This fund will also pay an enhanced capitation fee to a named doctor for monitoring and for prescribing NICE recommended psychotropic medication via algorithms. It is likely that group practices will be the main bidders for these clinics, as they have ready access to a registered patient population; however a NHS card will allow patients and carers some
flexibility in provision. In order to avoid misuse, this budget needs to be ring-fenced, and not used for any other purpose.

One of the major insights gained by Early Intervention in Psychosis (EIP) teams, has been the value of activity coordinators being front loaded to enhance patient and carer engagement (23). These workers have access to Local Authority funding for activity sessions (cycling, theatre) and to sympathetic employers to set up voluntary or paid employment. Perhaps each clinic should routinely have such a worker, as well as a non-medical prescriber (ideally a pharmacist) to ensure fidelity with NICE guidance.

**Magnesium and Vitamin D supplementation.**

Over the last decade, there has been increasing awareness of widespread deficiency in the general population of bodily reserves of Magnesium and Vitamin D. It is estimated that between 15% - 40% of adults lack Magnesium (24), with higher rates in elderly due to poor diet, calcium channel blockers and reduced absorption. A recent meta-analysis concluded that there was a significant inverse correlation between dietary magnesium intake and the risk of stroke, heart failure, diabetes and all-cause mortality (25); a finding consistent with previous findings among populations exposed to high Magnesium levels in water. This finding is highly relevant to people with mental illness, suggesting routine Magnesium supplementation to protect from acute cardiovascular events. Furthermore, there is some clinical evidence of Magnesium having beneficial effects on sleep and anxiety reduction (26).

Of late, there is increasing public health interest in ameliorating effects of Vitamin D3 supplementation on seasonal influenza (and associated community acquired pneumonia) (27). This is based on a strong association between reduced levels of Vitamin D and winter influenza in Norway (28). Routine Vitamin D3 supplementation of older psychiatric patients in group and care homes could be an effective public health measure, potentially as effective as the annual flu vaccination and serving as a back-up if the vaccination is off target for pathogens.

**Conclusions**

1. From a theoretical view point, it appears that the mortality gap is not diagnostic specific (similar duration of years lost in people with psychosis, bipolar disorder, autism and learning disability), but associated with specific medications, such as ‘atypical’ (non-dopaminergic) antipsychotic drugs. If this is the case, all people on such drugs (including people with Emotionally Unstable Personality Disorder and Dementia) should be routinely monitored to prevent cardiovascular and thrombotic disease.
2. On service development, there needs to be changes to service configuration and funding streams in order to narrow the mortality gap. Furthermore, staff looking after people with major mental health conditions need to be exposed to scenario based training to
be aware of the interaction between mental and physical health, in order to avoid diagnostic overshadowing and generate prompt treatment.

3. Overall, there needs to be a change of heart, towards seeing people with mental health conditions as deserving of high quality health care and nutrition provided to the general population. The attitude of ‘life unworthy of life’ (29, 30) fostered 100 years ago should be rejected; with proper physical health care, people with major psychiatric conditions can live a long and purposeful life, with valued input to family and work.

References

https://www.cowwarkpt.nhs.uk/download.cfm?doc=docm93jijm4n2393.p...
11. CQC: The state of care in mental health services 2014 – 2017
www.cqc.org.uk/...report/state-care-mental
12. The Five Year Forward View for Mental Health –NHS
https://england.nhs.uk>wp-content>...>2014


   https://www.rcplondon.ac.uk/file/32/download?token=5NwJEvTq


22. www.nhsconfed.org/~/media/Confederation/Files/Publications...


