Integration of Physical & Mental Health Care

A Model of Care for Individuals Prescribed Clozapine

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Summary

Chronic mental illness is associated with poorer outcomes for most chronic physical illnesses. In addition, clozapine, used to treat psychiatric disorders unresponsive to standard antipsychotic medications, has a range of serious side effects. Safe and quality use of clozapine in WA Health requires a service that integrates the management of mental and physical health of a group of vulnerable individuals.

Integrated care is the recommended model of care that should be applied. Any successful program will include:

1. Case management.
2. Careful monitoring of physical health.
3. An evidence-based protocol for follow-up.
4. A structured communication protocol.
5. Information technology and communication systems enabling collection, recording and sharing of clinical information between health practitioners.
6. General practitioner involvement in all stages of decision-making and service provision.

The ways in which the recommended model of care elements are implemented by a health service will be dependent on the overall clinical mix of patients the service caters for, service configuration, available resources, individual client needs, and the expressed wishes of consumers and carers about how they would like care to be delivered and how they would like to be involved.

It is recommended that Health Service Providers (HSPs) develop and implement site level policies and procedures in collaboration with on-site clinicians, local GPs and consumer and carer representatives, to provide a locally appropriate and integrated service approach incorporating the model of care elements described above, to holistically address the mental and physical healthcare needs and aspirations of consumers.
Introduction

Mental illness influences all aspects of the lives of individuals dealing with it. In addition to the risks associated with mental illness, physical health problems are amplified. This complex interaction was recognised by the Western Australian Clinical Senate in 2013 (1) and again in the recent consensus statement *Equally Well – the National Consensus Statement on improving the physical health and wellbeing of people living with mental illness*, produced by the National Mental Health Commission (2). The treatment of mental illness carries with it its own complex risks. Clozapine, a drug important in the care of complex treatment-resistant psychotic illness has the potential to precipitate a range of physical illnesses. Recognition of the risks associated with clozapine use led to the development of Guidelines for the Safe and Quality Use of Clozapine Therapy in the WA Health System to ensure use of clozapine in patients in Western Australia is both effective and safe (3). The Guidelines emphasise the risks associated with clozapine use and provide guidance on minimising these risks, facilitating safe use of the drug and promoting best outcomes for patients.

Recognition of risk and development of strategies for managing this risk are just one part of the change that needs to occur in order to maximise the potential of individuals with chronic mental illness to live fulfilling lives. This framework outlines the resources and processes that will be required in order to achieve these changes the in clozapine requiring patients. While the focus of this framework is upon those needing to use clozapine, the principles are applicable to other chronic mental illness as well.

Background

Physical and mental health are interrelated in a complex fashion, with mental illness magnifying risks of physical ill health through associated behavioural characteristics, the adverse social determinants of health which are all too often associated with poorer mental health, and through metabolic and behavioural effects of drug therapy (Figure 1). The bio-psychosocial view of health acknowledges that physical, mental and social influences that encompass genetic, environmental including economic influences together determine whether an individual experiences health or ill-health. Despite high levels of detailed knowledge and specialisation of modern health systems these factors continue to operate and adversely influence the health of many with mental health problems. It is imprudent to attempt to manage problems in these complex spheres as separate entities (4).
Those with severe mental illness have much higher mortality rates than the general population, typically dying 15–20 years earlier, largely as a result of poor physical health, and not directly from the effects of the mental health problems (5).
The death rate for Western Australians with mental illness is 2.5 times the rate for the general population, and higher again for those with a psychotic illness, and the life expectancy gap for those with serious mental health issues is increasing (6) (7).

The burden of chronic ill health for those with serious mental health represents an exaggeration of the influence of most chronic disease processes (Table 1), with worse outcomes for most physical diseases in the presence of a mental illness (4) (8) (9).

### Table 1. Burden of chronic ill health for those with mental disease (8)

<table>
<thead>
<tr>
<th>According to international evidence, if you have a serious mental illness you are:</th>
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<td>• between two and three times more likely to have diabetes</td>
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<td>• more likely to die from cardiovascular disease, even if you do not smoke</td>
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<tr>
<td>• more likely to be diagnosed with diabetes, respiratory disease or have a stroke under the age of 55 years</td>
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<td>• more likely to die from almost all key chronic conditions, and more likely to die within 5 years of diagnosis</td>
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<td>• extremely likely to also suffer from gastrointestinal disorders such as irritable bowel syndrome, fibromyalgia, chronic fatigue syndrome, temporomandibular joint disorder and chronic pelvic pain</td>
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<td>• 90% more likely to be diagnosed with bowel cancer if you have schizophrenia in particular</td>
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<tr>
<td>• 42% more likely to be diagnosed with breast cancer if you are a woman with schizophrenia.</td>
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In turn, people with long-term physical health conditions are two to three times more likely to experience mental health problems, with depression and anxiety disorders being particularly common.
In addition, compared to the general population, people with severe mental illnesses are less likely to have their physical health needs identified or to receive appropriate treatment for these.

The cost of physical illness is estimated to be multiplied two to three times when associated with mental illness. The costs are contributed to by the cost of drugs, but by far the biggest contributor to the economic burden is the demand for additional physical health care, some of it driven by anxiety and depression, as well as by the associated physical morbidity liked to mental health diagnoses (10-12).

It is unusual for services to provide comprehensive integrated health care to individuals who experience significant physical and mental health problems, or are undergoing treatments for physical or mental health problems and which carry high levels of risks of complications in the complementary sphere.

The United Kingdom review that led to the report *Bringing together physical and mental health* identified a major short-coming of many health professionals as a tendency to see patients as diseased organs (e.g. a heart patient) rather than a complete person, and for services to have rigid demarcations between physical and mental health professionals (4).

The review emphasised the need for a mind shift for health professionals working in organisations seeking to provide integrated care:

- a foundation of basic common competencies in mental and physical health
- an openness to explore what a person’s wider needs might be beyond the boundaries of their own specialty and
- an understanding of other forms of support that are available and how to make a referral to relevant services.
Model of Care

Integrated Care

The term integrated care refers to the provision of health care and services in such a way that ensures that the various needs of an individual using these services are met in a coordinated way, with medical, social and psychological needs met together (4). Integrated care involves collaboration between providers and services and occurs across primary, secondary and tertiary care. It is not simply multi-disciplinary care, but care organised with the patient’s perspective as the organising principle, that is a service that for the user is seamless and easy to navigate (13), designed to promote alignment between its constituent parts. This is distinct from services organised with provider perspectives which make it easier for the providers to do their jobs, and potentially leave the service user responsible for failures of communication and connection that may occur. Integrated care attempts to do away with the divisions between physical, mental and social care, acknowledging the World Health Organisation definition of mental health as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community.

The American Psychiatric Association commissioned a report that focused on the issue of medical and psychological care, and estimated that integration of medical and mental health services could result in a 5-10% reduction in US health care costs, a staggering $26 to $49 billion annually (12). The authors noted that the same diseases cost two to three times more for patients with mental illness in comparison with individuals without mental illness. In Ohio, 44% of Medicaid expenditure is on patients with co-occurring general medical conditions and serious mental illness, while individuals with serious mental illness account for 22% of the population (14) (15). Parks et al demonstrated that 2000 patients with schizophrenia accounted for $100 million in Medicaid claims, 80% of which were related to urgent care in emergency department and inpatient treatment (11) (15).

The features of integrated services that consumers would like to experience were outlined in the UK review (Table 2) (4). This made clear that it was not simply a juxtaposition of services that was desired but a series of professional and systemic attributes that recognised the individual and their social environment.

<table>
<thead>
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<th>Table 2. Key elements of integrated care from a service user perspective (4)</th>
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<td><strong>Professional attributes</strong></td>
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<td>Taking a ‘whole person’ perspective</td>
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<td>Communication and consultation skills</td>
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<td><strong>System attributes</strong></td>
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<tr>
<td>Co-ordination of care</td>
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<td>Proactive care</td>
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<td><strong>Role of service users/carers</strong></td>
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<td>Peer support and self-management</td>
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<td>Support for family and carers</td>
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The Royal Australasian College of Physicians has identified some of the characteristics of integrated care, from the point of view of the professional (10):

- designed for patient-centred care
- a focus on quality and safety
- supporting measurable outcomes
- providing for flexibility and local implementation
- promoting a cross sector approach.

There is clearly overlap in these views, with services “designed for patient-centred care” incorporating the elements of “user perspective”. It is also clear that achieving integrated care that meets all of these criteria is challenging, and the goal of integrated care is often not met.

Service and systemic barriers that inhibit integration of physical and mental health services have been identified.

**Mental Health Service Factors**

- a tendency to focus on mental health rather than physical health
- poor communication with patient/primary care provider
- physical complaints tend to be interpreted as psychosomatic illness
- guidelines perceived as threat to autonomy/lack of acceptance
- lack of knowledge regarding medical issues
- under-resourced/underfunded teams
- erroneous beliefs, e.g. individuals with serious mental health issues are unable to adopt healthy lifestyle.

**Physical Health Service Factors**

- stigmatisation
- physical complaints considered as psychosomatic
- under-resourcing
- complexity and time intensity of coordinating medical and psychiatric medications.

**Systemic Factors**

- lack of integrated health policy
- fragmentation of medical and mental health systems of care/lack of integrated services:
  - geographic separation of physical and mental health facilities
  - separate funding streams for physical and mental health services
  - separation of physical and mental health care ICT systems
- lack of access to health care even where available (inequity)
- lack of clarity and consensus about whose role it is to provide elements of care
- resourcing issues
- business model that emphasises cost of time over patient needs, making it difficult to spend time necessary to address all issues.
Efforts have and are being made to overcome these barriers and to integrate physical and mental health care in a variety of settings in different health systems, all of which have experienced the same medical, social and economic disadvantages of fragmentation of health care (4) (16). A number of simple but important concepts have been recognised that encourage integration (13):

- information sharing between professionals from different sectors
- standardised communication protocols and forms
- single assessment processes incorporating multi-disciplinary assessment
- defined pathways of care
- single access points to care.
**Care Delivery Options**

**Integrating Mental and Physical Health Care for Patients Taking Clozapine: the best model for Western Australia?**

There is not one solution to this issue, but all the approaches listed below have a role in managing care of patients taking clozapine. These have been explored in the “Safe and quality use of clozapine therapy in mental health services” developed by the Queensland Psychotropic Medication Advisory Committee (17). This group emphasises the importance of the general practitioner in all aspects of care, and their potential for providing leadership.

The particular approach selected will be determined largely by patient characteristics, modified by resource availability, and more than one approach will be used within a service. Individuals with strong initiative and community support can self-manage. There are some who can be effectively managed in primary care settings; still others who can achieve this with the facilitation of a case manager, and finally a group who because of their level of risk of non-adherence to therapeutic plans will be heavily reliant upon the sustained input of mental health services to maintain the possibility of positive outcomes. It has been noted that many individuals being treated with clozapine will be in this last group.

Different approaches have been proposed to facilitate integration of physical and mental health care. These reflect the backgrounds and experience of systems and of service personnel, as well as the resources that are available. The approaches are summarised as:

- supported self-management for physical and mental health
- enhanced support in primary care
- colocation of primary and mental health services
- consultation and liaison services
- integrated multidisciplinary teams.

The aim of implementing any of these approaches is to provide safe, effective treatment that is likely to be acceptable to the patient because it is readily accessible in a format that is accepting of the patient: the right care, at the right time, by the right team and in the right place (18).

**Supported self-management** for physical and mental health often involves group work but requires high levels of motivation from patients in order to maintain group attendance and work. It also requires a commitment from health professionals to inform patients of risks and benefits of treatments and to engage them in decision making (19). This approach is utilised at LIFT Psychology at Swindon in the United Kingdom (4). The program works in conjunction with General Practitioners and offers psycho-educational courses and individual support to enhance self-help and coping skills. The effect of shared decision-making, an important element of this approach, on health care utilisation, was assessed in a follow-up study of 170,000 US patients. Shared decision making via enhanced patient support was associated with a decreased rate of hospital admission and surgical procedures (20). This study confirmed that the support could be provided by telephone.

**Enhanced support in primary care** typically involves case managers working collaboratively with general practitioners or specialist medical teams and mental health teams, using standardised protocols to proactively manage problems. This type of program has been best evaluated for patients with depression and comorbid diabetes and seems cost-effective and improved diabetes related outcomes, but has also been used to manage depression associated
with cancer (4) (21). The key features of this approach are case management (often using nurses), and manualised therapy, working in conjunction with general practitioners. Intermountain Health in Western USA stratifies patients presenting with mental health and chronic physical health problems according to level of complexity and uses a hierarchy of treatments. Documents such as Clinical Guidelines for the physical care of mental health consumers can be utilised to systematise a clinical approach (22). This approach decreased health service utilisation, and is associated with improved outcomes (4) (21). This approach already works well in rural and remote Western Australia where general practitioners take the lead in providing all elements of management of complex patients. This approach may require an investment in general practitioner education, and optimal use of community funding opportunities such as Chronic Disease Management item numbers and the General Practice Management Plan (23), or diversion of existing mental health funding to general practitioner sessions.

**Colocation of primary care and mental health services** has been described as the “liaison-physician” role in mental health services (4). This is attractive because many of the patients will not have strong attachments to general practitioners, despite the range of health problems they experience. The application of this model can range from a comprehensive primary care service to interventions targeted at specific issues, and will be influenced by geographic location and proximity to other services, workload and funding models. The Wellness Clinic at Fremantle Hospital has a general practitioner “in-house” who is involved in supervision of patient care and in ensuring better community liaison. Co-location of services can decrease the number of visits by patients to facilities, and facilitate interdisciplinary communication and promote adherence to care plans.

**Consultation and liaison services** are typically reactive and less specialised than some of the other options. This model can work in general hospital settings but can be difficult to achieve in more isolated specialised and community settings.

**Integrated multidisciplinary teams** may work within the community or within hospitals. They involve dedicated staff committed to working together across disciplines with frequent consultation and feedback between the groups. This model has been successfully employed in Western Australia in the “Wellness Clinic”, part of the Fremantle Mental Health Service (24) and in the Eating Disorders Program at Princess Margaret Hospital for Children (25). Both involve dedicated physical medicine expertise working within mental health teams. The Wellness Clinic is nurse-led with a general practitioner engaged in-house to review complex patients and to create patient links to general practitioners in the community. The Eating Disorders Program utilises specialist paediatricians working alongside mental health clinicians. This model is relatively expensive compared with some other approaches, but provides specialised care and creates opportunities for proactive, integrated care. It is important to note that integrated care does not necessarily mean co-located care, but requires special attention to collaboration and communication and typically an investment in electronic data accumulation and communication. It may also involve flexibility in roles such as use of nurse led clinics.

It is important to note that all of these approaches must include **screening and lifestyle interventions** based on best available evidence to prevent chronic conditions developing in individuals with severe mental illness. The National Consensus Statement recommends a “promotion, prevention and early intervention” approach (2). Health promotion mechanisms such as quit smoking, minimising alcohol abuse and advice to undertake exercise must be part of core elements offered by the service to individuals with severe mental illness both in inpatient and community settings (8). Patients with chronic mental health issues are keen to adopt healthy lifestyles, which can provide physical and mental health benefits.
Clinical Management and Monitoring

Case Management
All patients require an element of “case-management” so that they are involved in health – related decision making, they do not become lost from clinical view and run the risk of adverse drug effects, or develop other adverse health outcomes. This can take a variety of forms that include individual case management, a clozapine coordinator, or general practitioner(4). For high-risk patients individual case management is recommended. The careful process of initiation and titration of clozapine as documented in the Guidelines for the safe and quality use of clozapine in the WA Health system and chart emphasises the management of each “case” (3).

Physical Health Monitoring
Physical health monitoring required for safe management of clozapine is outlined in Guidelines for the safe and quality use of clozapine in the WA Health system (3). Use of primary care clinicians, usually general practitioners, has a number of advantages including maintenance of a community base and limiting costs to health services. In some situations, a clozapine coordinator will undertake this role, potentially in conjunction with both a general practitioner and a specialist service. General practitioners can be integrated into a specialist clinic, or can provide consultation from their usual general practice base. There are however challenges for general practitioners in working in the community space, in that the patients often demand considerable time, which is inadequately rewarded by our fee structures. Follow-up of non-attendance at clinics can demand additional resources, not readily available in general practice. An alternative successfully used in Australia is Nurse-led clinics, working within mental health services and liaising with a psychiatrist, general practitioner or physician.

Co-location of services is recommended where possible to decrease the number of visits by patients to facilities, to facilitate interdisciplinary communication and to promote adherence to care plans. Irrespective of the model of care pursued, general practitioners should be included in patient management.

Evidence-based Protocol
The starting point for successful integration of physical and mental health care is an agreed evidence-based protocol as outlined in the Guidelines for the safe and quality use of clozapine in the WA Health, which defines assessments, including time-lines, measures, and intervention points (3) This will define minimum steps in monitoring, together with appropriate frequency of monitoring.
Key Enablers

A Structured Communication Protocol

These processes need to be supported by a structured communication protocol with programmed opportunity to transfer information in both directions between care providers so that mental and physical health clinicians do not work independently, and assumptions do not lead to overlooking the need to change management. The structured communication can take the form of scheduled face-to-face meetings, scheduled electronic hook-ups, or electronic bulletins. Use of electronic health records has been recommended by the National Mental Health Commission as an approach which facilitates exchange of information and empowers patients (2).

It is likely that some clinics will not have immediate, ready access to electronic systems, in which case regular meetings of key clinicians should be held to share information and facilitate decision-making. It is likely that even when electronic systems are in use periodic face-to-face meetings will enhance performance. Decisions for these need to be communicated to all stakeholders.

Information Technology

Appropriate information technology to facilitate ease of sharing of results and decisions is critical in enabling communication across disciplines and frequently across sites. There are several issues that need to be considered in achieving a functional electronic communications system in Western Australia. The first is enabling clinicians from different disciplines, possibly at different sites, to document clinical interactions and to have this available across sites. This problem has been solved in WA Health, and a number of applications are currently available for sharing information. All would require some modification to extend their functionality. PSOLIS (The Psychiatric Services Online Information System) is the basic data recording and sharing tool of mental health services, but has the disadvantage of inaccessibility for non-mental health professionals. The Community Health Information System (CHIS) has been implemented within WACHS to link Child Health, Allied Health, Aboriginal health, Public Health, Primary Health clinics and Pharmacy services. This system appears to have potential advantages if deployed in clinics for integrating physical and mental health. A third solution to this problem is to use a primary care package. There are a number of these commonly used by general practitioners that enable recording and sharing of clinical information.

The second component of information technology that requires resolution is access to laboratory results. Within WA Health, iSOFT Clinical Manager is generally available but may require software installation and maintenance in settings not currently using it. This will work efficiently for patients who receive much of their care, including laboratory testing within a WA Health facility, but will not provide access to private pathology laboratory results.

The precise type of support and clinic infrastructure will be determined by the clinic, based upon workload and resource availability.
**Process of Implementation of the Model of Care**

1. Establish the **evidence based protocol** in the clinic. This will require leadership from the Director of the clinic. Ensure titration and monitoring charts are readily available in all consulting rooms. Be prepared to audit documentation of adherence to protocol.

2. A **governance process** needs to be established. At the very least this should involve regular reporting to the senior management body in the clinic of levels of adherence to the protocol and patient outcomes related to both physical and mental health.

3. A clinician in each clinic utilising clozapine should be identified as the **Clozapine Program Lead**, who will be a “champion” of safe clozapine use, and provide broad oversight of clozapine use. The Clozapine Program Lead will be responsible for reminding staff of the model-of-care, and the clozapine initiation and titration sheets.

4. All patients being prescribed clozapine should be enrolled in a **Clozapine Management Program**.

5. Assign a **case-manager** for each patient being prescribed clozapine. This may be an existing case-manager, or it may be another member of the care team. In general psychiatrists responsible for prescribing clozapine are not best placed to fill this role.

   The case-manager will complement other team members, and be involved in education regarding clozapine risks and benefits, assessment with the patient of the type of support that is appropriate, a point of contact for emergent problems, an intervention point for
non-attendance and non-adherence to treatment plans and a coordinator of information relating to the patient’s use of clozapine.

The clinical service will need to make decisions regarding what is a reasonable workload for a case manager. It is anticipated that these patients are complex and will require more time than many other patients, and so case-managers will need to have appropriate time available to them.

6. Make a decision regarding who is to undertake physical assessment, a clinic nurse, general practitioner, clinic medical officer or psychiatrist. This must be appropriately documented so that the information is readily available to all involved clinicians. This process will need infrastructure support.
Responsibilities of Stakeholders in Clozapine Management

The Patient
- To endeavour to work with the clinical service in managing their problem.
- To adhere to agreed treatment plans.
- To advise their case manager when they believe that treatment change should be considered.
- Notify your doctor if you have ceased clozapine and are contemplating restarting it.

The Family
- To support the patient in managing their illness.
- To promote appropriate autonomy for the patient.
- To advocate for the patient when they perceive that the patient is unable to do this.

The Clinical Care Providers
- To work with the patient and their family to develop an agreed upon care plan.
- To maintain effective and timely communication between members of the treating care team in order to integrate care and maintain awareness of issues between team members.
- To maintain effective and timely communication with the patient and their family.
- To recognise that all elements of treatment plans, including drug therapy needing regular review, and adjustment if ineffective or the “costs” outweigh the benefits.

The Health Service
- To support the clinical service with appropriate human, physical and information technology and communication resources to enable implementation and maintenance of the model of care.
- To support the clinical service with recognition of the complex and demanding role that clinical care providers undertake.
- To establish and maintain a clozapine audit program.
References

1. WA Department of Health. Let’s get physical- Addressing the physical health needs of West Australians with mental illness. Perth, Australia; 2013.


7. Lawrence D, Hancock K, Kisely S. The gap in life expectancy from preventable physical illness in psychiatric patients in Western Australia: retrospective analysis of population based registers. BMJ. 2013;346:f2539.


24. Velayudhan A. A Pilot Intervention to Manage Physical Health Concerns in a Mental Health Service. RANZCP Annual Scientific Meeting; Perth, WA: RANZCP; 2016.
