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REVIEW OF THE PSYCHIATRIC CONSULTATION-LIAISON SERVICE AT HELEN JOSEPH HOSPITAL

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A research report submitted to the Faculty of Health Sciences, University of Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Medicine in Psychiatry

Supervisor: Dr. A.B.R. Janse van Rensburg

Johannesburg, 2012

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DECLARATION

_____signature_____

_____ day of 25/09/2012 2012

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DEDICATION

To my family for their ongoing support

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ABSTRACT

Objectives: To provide a demographic and clinical profile of all patients consulted by the consultation-liaison psychiatry (CLP) service, and describe the clinical management of patients referred with a diagnosis of a mental disorder associated with a co-morbid medical condition in a general hospital. ***Method***: A retrospective record review of all patients referred to CLP team over a six-month period. ***Results***: A total of 884 routine and emergency consultations were done for patients referred from the various other clinical departments, comprising of 662 patients (males = 305; females = 357) between the ages of 13 – 90 years. The most common reason for referral documented, was a request for assessment (n=182; 27.5%). Only 63 patients (10%) had a confirmed axis 1 diagnosis with a defined co-morbid medical condition. The medical wards admitted the majority of the patients (n=37; 67.3%), most of which had a diagnosis of delirium (n=28; 51.9%) and also HIV (n = 23; 67.7%). ***Conclusion***: A female patient between the ages of 31 - 45 years with a diagnosis of delirium and also suffering from HIV/AIDS was more likely to be referred to the CLP service for assessment, and more likely to be managed in the medical wards.

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CHAPTER 1 INTRODUCTION

Liaison psychiatry has been conceptualized as far back as the late 1800s when Benjamin Rush promoted interest in the integration of medicine, “the psychosomatic unity of the body and soul”.[1] Some authors have described liaison psychiatry as the practical application of all psychiatric knowledge, ideas, and techniques to situations in which health care providers understand and take care of their patients.[2] Although it is not tied to one particular thought or theory, core to the application of liaison psychiatry, is the conceptualization of people as whole beings and not separating the mind from the body.

Ever-since conceptualization, consultation-liaison psychiatry (CLP) has undergone a number of phases. Although not exhaustive, these include the following: creating CLP as a sub-speciality and dictating the terms of training in this field; establishing models for implementing CLP in clinical practice; promotion of research and inter-disciplinary collaboration in the care of patients and training of medical practitioners; and provision of guidelines on the management of commonly encountered conditions.[1,3,4] High-income countries have long lobbied to create sub-specialties in psychiatry, whereas low and middle-income countries have lacked behind in this with much emphasis put on training general psychiatrists.[4] In their editorial on psychiatric subspecialties in South Africa, Stein et al., alluded to the lack of resources as a hindrance to producing subspecialties in developing countries, although this does not prevent psychiatry

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trainees from spending time in a particular area, so they could be recognized as having a specific skill in that sub-specialty.[4] The need for psychiatric consultation services has spilled across many other clinical disciplines.

In his study, Kornfeld referred to a meeting in 2001 when the American Board of Psychiatry and Neurology recommended that CLP should be approved as a sub-specialty with a new designation of "psychosomatic medicine".[3] He discussed the numerous contributions made by CLP towards the practice of medicine, and possible future opportunities and challenges. As a result, one can anticipate major opportunities in collaborative work with non-psychiatric clinicians. Some authors made mention of a number of observations that supported the rational for CLP: 1) there was a high rate of psycho-social disability and concurrent psychiatric disorders in medical in-patient and out-patient settings, more so in patients with chronic medical conditions; 2) in-patients with psychiatric morbidity, there was a higher utilization of general medical services, with consequently an increased economic burden on the services, as well as a compromised functional status and quality of life of patients; and finally 3) most patients received their only mental health care in a general health care setting, with studies demonstrating that this received care was often insufficient.[5,6] These observations were further supported by Rudy and House, who reported that staff in general hospitals attended to more patients with psychiatric illness, as compared with staff in community services, including: acute presentations of psychiatric problems; patients with co-morbid chronic physical illness; and patients with somatisation disorders who would not attend

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community mental health service, but might see a specialist psychiatrist in the general hospital.[7]

The evaluation of the mental health of patients with serious medical illness, formulation of their problems and diagnosis, organisation, and implementation of an effective treatment plan requires complex and integrated clinical skill. It is evident that these services need to be rendered by a psychiatrist who has extensive clinical experience. CLP services should seek to identify and reduce barriers to care and raise the level of comfort, setting more realistic expectations from the consultations without distracting the treating team from their main objectives.[1] Tasks set out for a CLP team would include: 1) screening and identification of patients with pre-morbid and co-morbid psychiatric conditions; 2) referral for the appropriate treatment; 3) providing treatment on site; 4) liaison communication with the treating team; 5) facilitating communications between providers; and 5) advocacy.[1]

The Academy of Psychosomatic Medicine established practice guidelines for psychiatric consultation in the general medical setting.[6] In these 1998 guidelines, it is noted that the problems that most commonly lead to a request for a psychiatric consultation in a medical or surgical setting included, for example: “assessment”, “aggression”, “psychosis”, “confusion”, “restlessness”, and the determination of (mental) capacity and suicidal ideation or an attempted suicide.[6] Bronheim et al., also reported that most of time, however, the overt reason for initiating a consultation was not as serious as the actual unrecognized co-morbid (medical) problem.[6] These sentiments were echoed by

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Price et al., when they called for the integration of neurology and psychiatry, noting that: psychiatric symptoms were common; they contribute to the morbidity in neurologic disease; and that many attributes of psychiatric diseases could in fact be neurologic in origin.[8]

1.1 Service models for consultation-liaison psychiatry

There seems to be no consensus on whether CLP services should either be run as an independent unit or as part of the psychiatric ward in a general hospital.[9] This would probably depend on the availability of resources, be it monetary or skilled personnel. Independent units could either have their own admission wards, or follow-up patients in the referring wards, or refer the patients to other psychiatric wards if need be. Recommendations on constituent team members involved in independent liaison units (ILU) were not definitive, but authors indicated the need for a senior psychiatrist for supervision, registrars specializing in psychiatry, liaison nurse and a clinical psychologist.[9,10] The advantages that independent services had, as highlighted by some authors such as White and Özka, included: better continuity of care, accumulation of experience on the psychiatric staff dealing with medical presentations, and probably better coordination of services.[9,11] White, however, raised the concern that if liaison services are kept independent, though it may seem ideal, that the general psychiatry staff would then be deprived of contact with other medical disciplines.[9]

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Despite the noted advantages of having ILU in a many hospitals, CLP services are actually often incorporated into the scope of service rendering of general psychiatric wards. It could be due to the fact that consultation-liaison psychiatry is not yet recognized as an independent sub-specialty in most countries, especially low and middle income countries, and also possibly due to financial and human resource constraints. Some other challenges that could arise as a result of the lack of an ILU are for example, interdepartmental dynamics that could result in friction and stigma, or a negative attitude towards patients with mental illnesses in general wards, resulting in poor management.

Whether independent of integrated, Bronheim et al., elaborated on a number of interventions that could be instituted by a CLP service, including: assessment and advice by mental health clinicians (including psychiatrists, psychologists and social workers); physical interventions, for example, medication and electroconvulsive therapy; psychological interventions; a combination of above interventions couple with social interventions (for example occupational therapy, home support or financial support) and also no intervention.[6] The possible outcome of a CLP-consultation may include the referral to an outpatient or community clinic, the admission to a medical ward, or the admission to a psychiatric ward.

1.2 Co-morbid medical conditions

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In the context of the overlay with co-morbid medical conditions seen in consultation-liaison psychiatric services, it is important to evaluate the management of psychiatric diagnoses with co-existing co-morbid medical conditions. According to the revised text edition of the Diagnostic and Statistical Manual (DSM IV-TR) of the American Psychiatric Association, it is generally understood that to diagnose a psychiatric disorder which resulted from a co-morbid medical problem, there should be a neuro-physiological link.[12] It is important to note that mental disorders could also develop from the psychological effects of an existing co-morbid medical problem.[2,12] To discern these two aetiological factors might be difficult, as there could also be an overlap at times, depending on the pathological processes of the existing co-morbid medical problems, as in the case of HIV/AIDS. This causal relationship was, for example, reported by Price et al., who referred to the bi-directional interaction between HIV/AIDS and mental health.[8]

In a local South African study, Oosthuizen et al. also reported on the implications of the co-morbidity of general medical conditions and psychiatric disorders for the clinician.[13] They raised concerns that due to the rapid expansion of knowledge in the medical field; most clinicians have to choose to focus on a particular area of medicine due to the massive amount of information available. This resulted in the compartmentalizing of medical practice, presenting challenges in clinical practice as patients often present with a multitude of problems. They emphasized the importance of doctors, more so for psychiatrists, to recognize the close relationship and ongoing interaction between mental disorders and general medical conditions.[13]

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Referring to the DSM IV-TR, delirium, dementia, psychotic disorders due to general medical conditions (PGMC), and mood disorders due to general medical conditions (MGMC), form part of a burden of disorders that a consultation-liaison team will routinely have to manage.[12] As noted, the challenge is that these symptoms overlap, and as a result, could mask the presence of each other. They are often also co-morbid with each other and as such, it is important to evaluate and identify them as this may influence the management of the case. Another challenge is that patients with known pre-existing psychiatric disorders also develop medical conditions independent from their psychiatric condition. This was also highlighted in the review by Oosthuizen et al., who reported on a higher prevalence of general medical conditions found in the patients with mental disorders.[13]

Delirium can be described as a complex neuropsychiatric condition with multiple symptoms, including cognitive, psychological (including psychotic symptoms) and physical disturbances. Although individual symptoms (e.g. disorientation, concentration and memory impairment) may be non-specific, their pattern of occurrence in delirium is highly characteristic, namely: an acute onset, a fluctuating course and transient in nature. Point prevalence was quoted to be between 10-30% depending on the study population and method used.[14-16] Meagher noted that the management of delirium requires interdisciplinary collaboration and that the contribution of a psychiatrist was vital, because of the large number of differential diagnoses, including co-morbid

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psychiatric conditions.[14] He proposed that psychiatric expertise could be implemented at a number of levels, to: help with the coordinating of the multidisciplinary treatment necessary for the management of delirium; assist with clarifying the differential diagnosis in patients with suspected delirium, as they are better skilled with cognitive assessments; facilitate identification of predisposing and precipitating factors; advise on psycho-pharmacotherapy, as familiarity with psychotropics made the psychiatrist better equipped; and finally, to facilitate the provision of the necessary supportive psychotherapeutic input and interaction with relatives.

The other neuropsychiatric condition associated with general medical conditions and commonly encountered in CLP services, is dementia. It is generally characterized by an insidious deterioration in multiple functional domains including intellect, social and occupational functioning. According to a systematic review done by Ferri et al., most classifications for dementia, have been based on neuro-pathological criteria and presumed aetiological factors, and less on clinical characteristics.[17] This review also highlighted that, although the aetiology was multi-factorial, Alzheimer's and vascular dementia made up the majority of the total prevalence. The prevalence of dementia has been quoted as generally very low below the age of 60 but increasing thereafter.[17] Females were reported to have a higher prevalence than males, possibly due to the higher occurrence of Alzheimer's in women. The higher prevalence of HIV/AIDS, which constitutes a significant local cause of dementia, could possibly change this trend especially in the sub-Saharan Africa, although HIV-associated dementia has not received much attention.[18] Dementia results in a significant burden on health facilities

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due to the multiple medical and psychiatric problems that develop as a complication of dementia. This burden results in quite a significant strain on the very limited financial resources in developing countries.[19]

According to the DSM IV-TR, the diagnosis of "primary" mood disorders, such as major depressive and bipolar mood disorders, can't be confirmed if the presenting depressive or manic symptoms are due to the physiological effects of a substance or of a general medical condition such as hypothyroidism, epilepsy or HIV/AIDS.[12] Mood disorders due to a general medical condition (MGMC) are therefore regarded as a mood alteration resulting from the direct effects of a specific medical illness or agent.[2,13,20] Given the wide spectrum of affective symptom presentation, from depression to an expansive mood, and the numerous possible aetiological factors, it has made it difficult for researchers to quantify the prevalence of these disorders. This is further complicated by the fact that a MGMC can develop from a systemic illness per se, without direct involvement of the brain.

The same diagnostic principles also apply to the diagnosis of psychotic disorders, where a diagnosis of a "primary" psychotic disorder, such as schizophrenia, can't be made unless underlying medical disorders has been ruled out as a possible cause of the presenting symptoms. The same challenges, as discussed, therefore also apply to psychotic disorders due to general medical conditions (PGMC). While the incidence and the prevalence of PGMC in the general population is also not clear, the prevalence of psychotic symptoms in selected clinical populations was reported to be increasing.[2]

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1.3 Guidelines for consultation-liaison psychiatry

The literature has demonstrated the importance of having guidelines for consultation-liaison psychiatric services. Lack thereof, could only result in the haphazard provision of service and an underutilization of resources, as reported by a number of the studies above.[20] Rudy and House reported that despite the large obvious need, liaison psychiatric services were often underdeveloped and provision varied greatly from one country to another.[7] As a result practice guidelines are also diverse. Bronheim et al., also stressed the importance of developing practice guidelines to ensure that mentally ill patients in non-psychiatric settings get the best and most appropriate care possible.[6] They would give an indication on the special training, knowledge and skills necessary to provide psychiatric consultation for medical patients and their physicians. Special emphasis was placed on fundamental components of psychiatric assessment and the collaborative management by a multidisciplinary team in a bio-psychosocial model.[21] They suggested that intervention should be supported by a good understanding of the biological/medical aspects of illness and sound knowledge of drug interactions. It may require that additional investigations should be done and some alterations of medications considered to treat the user's medical disorder, as well as specialized psychopharmacology. Archinard also emphasized the need to be mindful of special

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issues with regards to psychotherapy in medically ill patients and the importance of family and social assessment and intervention in the treatment plan.[21]

Guidelines for CLP should also address issues pertaining to management, supervision, ethical standards, medico-legal and research issues.[1,21] Although they may be different from one country to the other, they should in principle be comparable and also assist in monitoring the quality of the service as noted in several studies above. Whilst this study aimed to describe liaison-psychiatric services in a local general hospital, there were no published guidelines found in the literature for South African liaison-psychiatric services. These would make it challenging when coming to benchmarking the local liaison services. The quality indicators that were used in a peer-reviewed study in Switzerland included, for example, the following areas: timeliness of response, communication with referrers and follow-up agencies, and supervision of trainees.[22] This might also give an indication of whether the CLP services were used optimally.[23]

1.4 Helen Joseph Hospital

Integrated CLP services at Helen Joseph Hospital (HJH) in Auckland Park, Johannesburg, have been rendered as part of the service rendering footprint of the 30-bed acute adult admission psychiatric unit. According to its designation, this unit has also rendered 72-hour assessments and admits voluntary, assisted and involuntary patients since the promulgation of the Mental Health Care Act, No. 17 of 2002 (MHCA).[24] At the time of this study, the HJH psychiatric unit has been staffed by two

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full-time senior consultant psychiatrists, two registrars and one to two medical officers. Medical interns had just started to rotate through the unit in January 2008. The clinical responsibilities of the unit included in-patient care, outpatient clinics and provided a liaison service. Since Jan 2009, a more independent structure for consultation-liaison was opted for, with one consultant responsible for the in-patient unit and the other for the CLP service and outpatients. The psychiatry unit supports the whole hospital, which has a current operational capacity of 530 beds and operates a 24-hour casualty or emergency section. Apart from service delivery, the unit is also involved in research and in the training of nursing staff, medical students and psychiatric registrars.

Prior to 2009, no separate (independent) liaison-psychiatric block was offered and as such, registrars and medical officers took turns in rendering the service. It was felt that the load of the liaison service was too much to maintain for long periods. Doctors from the community clinics were often allocated to cover after hours, for their overtime. These arrangements introduced other operational problems in the system namely: loss of continuity of care; communication breakdown; inconsistent data capturing and administrative problems. The liaison service attended to routine (ward) consults and also emergency (casualty) consultations. It provided 24-hour cover to the hospital. Like most local general hospitals, as described by Bronheim et.al, there were also no procedural definitions that designated certain clinical situations as emergencies.[6] Rather, the emergency designation was based on the requesting physician's perceived need for prompt service.[6] Following implementation of the MHCA, a clinical review was undertaken of a four-year period (2004-2007) of mental health care activity and

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outcome at HJH, reviewing service delivery, teaching and research.[25] An increase in the numbers of users managed by the in-patient assessment unit was observed, with most referrals from the casualty unit (n=443, 85% of the total admissions) and from the Department of Medicine (n=56, 10.8%).[25] A particular limitation of this review was that the quantitative investigation only focused on the in-patient aspect of service delivery activities and it was recommended that future reviews and cost estimates should also include out-patients and consultation liaison services.

The purpose of this study is to review the CLP service at the Helen Joseph Hospital, with particular reference to patients that were diagnosed with a mental disorder associated with a co-morbid medical condition i.e. with delirium, dementia, PGMC, and MGMC. The objectives for this study were:

(1) To provide a demographic and clinical profile of all patients that were routinely consulted by the HJH consultation-liaison psychiatric services during a specified study period; and

(2) To describe the clinical management of patients who were subsequently admitted after CLP consultation, with a diagnosis of a mental disorder as well as with an associated co-morbid medical condition.

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CHAPTER 2 METHODS

2.1 Study design and population

This study was a retrospective record review of all patients referred to the CLP services at the HJH over a six-month period, January to June 2009. HJH is a general hospital that serves mainly an adult population, with a minimum age of intake of 13 years. The definition of a "co-morbid medical disorder" for the purposes of this study was all those patients who, after assessment by the consulting doctor, were diagnosed with: 1) delirium; 2) dementia; 3) a mood disorder due to a general medical condition; or 4) psychosis due to a general medical condition. Based on the study's findings and on the literature review, recommendations were formulated with regards to practical local operational guidelines for the management of patients with acute psychiatric and co-morbid medical conditions at HJH, including guidelines with regard to some critical areas in the CLP training of psychiatrists.

2.2 Data collection

The data used to describe the profile of patients referred for a CLP consultation at HJH during this study period, was collected from routine consultation summaries as per "Request for consultation" form (Appendix A). A data sheet was compiled based on this document, which was completed for each user after the review of their clinical records

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(Data Sheet 1, Appendix B). To describe the clinical management of patients admitted subsequently to the initial consultation with a diagnosis of a co-morbid medical condition, all patients referred and diagnosed with an acute co-morbid medical condition (e.g. delirium, dementia, mood and psychosis due to a general medical condition or substance) were identified. For these patients, in addition to the "Request for consultation" form, their whole clinical record/file was reviewed and data on the diagnosis, investigation, management and outcome was collected. With regards to the diagnosis, DSM IV-TR criteria were used, and a datasheet was created to facilitate the collection of information, (Data Sheet 2, Appendix C).[12]

To achieve the first objective, variables included demographic (age and gender) and clinical variables (reasons for referral, provisional diagnosis, and follow-up/management plans) – Data Sheet 1, Appendix B. For the second objective, variables included demographic (age and gender), clinical (physical signs and symptoms, psychiatric symptoms, psychiatric diagnosis, and general medical condition), management (investigations, admitting ward), and outcome variables (resolution of the conditions with or without complications, length of inpatient stay, referral endpoints) - Data Sheet 2, Appendix C.

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2.3 Data analysis

Data was entered into the database using an Excel spread sheet. Data control was done and the statistical analysis was done using Epi-Info and SAS. The description of

the profile of patients was done according to standard statistical practice including the calculation of frequencies, means and data distributions for the identified variables, where appropriate. The statistical significance was not included in this study because of the very small sample size. With regards to data analysis, the data that was missing or not recorded was excluded.

2.4 Ethical considerations

Data was captured and analyzed in an anonymous way by allocating a study code to each record, to prevent the identification of any user. Approval for this study was obtained from the head of health establishment at HJH. The protocol was submitted to and the required ethics clearance was granted by the Human Research Ethics Committee of the University of the Witwatersrand (number M090648).

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CHAPTER 3 RESULTS

For the six month period January to June 2009, a total number of 884 routine and emergency consultations were done by the Department of Psychiatry at HJH, for patients referred by the various other clinical departments, including Internal Medicine; Accident and Emergency Services; Surgery and Allied departments (psychologists and social workers). The number of consults from these department were as follows (total; average per month): Accident and Emergency Services (535; 89); Internal Medicine including ICU (294; 44); Surgical (including orthopaedics and general surgery) (43; 7); and Allied departments (included psychologists and social workers) (12; 2). Some patients were consulted several times, which amounted to a total of 662 patients (cases) who were consulted over this six-month period.

3.1 Demographic and clinical profile of patients consulted

The demographic and clinical variables of these cases that were reviewed included: age; gender; reason for referral; presenting co-morbid medical symptoms; and provisional Axis I diagnosis following the consultation.

3.1.1 Age and gender

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Of the total number of cases consulted (n=662), of whom 357 were females and 305 were male, only 656 of the patients had their ages documented (Table 3.1). This represents a ratio of 1.2:1 female to male patients. The age categories considered were: 5-15 years; 16–30 years; 31–45 years; and 46–60 years. The majority of patients were between the ages of 16 and 45 years (n = 484; 73.7%), with the smallest number younger than 15 years (n = 8; 1.2%).

Table 3.1 Age and gender of patients consulted by the HJH Department of Psychiatry, January to June 2009

Age Categories	Males	Females	Total
5-15 years	4 (0.6%)	4 (0.6%)	8 (1.2%)
16-30 years	131 (20%)	117 (17.8%)	248 (37.8%)
31-45 years	106 (16.2%)	130 (19.8%)	236 (35.9%)
46-60 years	50 (7.6%)	70 (10.7%)	120 (18.3%)
> 60 years	11 (1.7%)	33 (5%)	44 (6.7%)
Total	**302 (46%)**	**354 (54%)**	**656 (100%)**

3.1.2 Reason for referral for a psychiatric consultation

The reasons why patients were referred to CLP services at HJH during this period included: “for assessment” (mental state assessment; re-consultation; and assessing capacity); “behaviour disturbance” (disorganization; aggression; and restlessness); “psychosis”; “confusion”; “mood symptoms” (depressed; irritable; and elevated); “psychosocial stressors”; and because of a suicide attempt or suicidal ideas. For the total number of cases (n=662), the most common reason for referral documented, was

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for assessment (n=182; 27.5%) and was distributed evenly for males (13.9%) and females (13.6%). (Table 3.2) The gender distribution was fairly equal for most other reasons for referral, except for mood symptoms, where twice as many females were recorded to have been referred for presenting with mood symptoms (n=80; 12.2%), compared with males (n=48; 7.3%).

Table 3.2 Reasons documented for the referral of patients to the HJH Department of Psychiatry, January to June 2009

Reason For Referral	Male	Female	Total
1. Assessment *	92(14.1%)	90(13.7%)	182(27.8%)
2. Behaviour **	30(4.6%)	26(4%)	56(8.6%)
3. Psychosis	13(2%)	30(4.6%)	43(6.6%)
4. Confusion	26(4%)	25(3.8%)	51(7.8%)
5. Mood symptoms ***	48(7.3%)	80(12.2%)	128(19.5%)
6. Psychosocial stressor	48(7.3%)	46(6.9%)	94(14.2%)
7. Suicide attempt/ suicidal thoughts	48(7.3%)	60(9.1%)	108 (16.3%)
Total	**305(46.1%)**	**357(53.9%)**	**662(100 %)**

* Assessment includes: mental state assessment, determination of capacity, and re-consultation;
** Behaviour includes: disorganization; restlessness and aggression;
*** Mood symptoms includes: depressed; irritable; and elevated

3.1.3 Presenting co-morbid medical symptoms

The co-morbid medical symptoms with which referred cases presented were categorized in terms of the particular system affected: cardiopulmonary; central nervous; gastro-intestinal; genito-urinary; and muskulo-skeletal. It was further considered how many of these systems were affected and documented in an individual

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patient (Table 3.3). For most patients (n=464; 70%) no presenting co-morbid medical symptoms were documented. The most common co-morbid medical symptoms documented was central nervous system symptoms (n=84; 12.6 %); followed by systemic illnesses i.e. malignancies, sepsis etc., (66; 9.9%); and the third was cardiopulmonary system (n=44; 6.6%).

Table 3.3 Co-morbid medical symptoms of patients referred for consultation to the HJH Department of Psychiatry, January to June 2009

Systems identified	Male	Female	Total
None	191(28.9%)	273(41.2%)	464(70.1%)
1 (e.g. CNS)	93(14.2%)	63(9.6%)	156(23.8%)
≥ 2 (e.g. combination of CNS; Systemic; +/- cardiopulmonary)	21(3.2%)	21(3.2%)	42(6.4%)
Total	**305(46.1%)**	**357(53.9%)**	**662(100%)**

3.1.4 Provisional Axis I diagnoses following consultation

Provisional diagnoses were documented for the consultations (n=884) done during the study period. The top five most common provisional diagnoses made were: unspecified or no Axis I diagnosis (149; 16%), which included Axis II personality traits or disorders and intellectual impairment as main presenting problem; delirium (n=107; 12.1%); depression (n=103; 11.7%), including major depression and dysthymia; schizophrenia (92; 10.4%); and bipolar mood disorder (82; 9.3%), Table 3.4.

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Table 3.4 Provisional Axis I diagnosis after consultation by the HJH Department of Psychiatry, January to June 2009

Provisional Axis I diagnosis	n (%)
Unspecified or no Axis I (including Axis II personality and intellectual impairment)	149 (16.9%)
Delirium	107 (12.1%)
Depression	103 (11.7%)
Schizophrenia	92 (10.4%)
Bipolar Mood Disorder	82 (9.3%)
Substance-induced Disorder	78 (8.8%)
***PGMC**	54 (6.1%)
Substance Abuse	53 (6%)
Dysthymia	48 (5.4%)
Dementia	35 (4%)
****MGMC**	22 (2.5%)
Anxiety	19 (2.1%)
Conversion	13 (1.5%)
Adjustment Disorder	9 (1%)
Schizoaffective Disorder	7 (0.8%)
*****ADHD**	5 (0.6%)
MOOD due to substance	4 (0.5%)
Bereavement	2 (0.2%)
Toxic	2 (0.2%)
Total	**884 (100%)**

* PGMC - psychosis due to general medical condition;
** MGMC - mood due to general medical condition;
*** ADHD- Attention Deficit/Hyperactivity Disorder

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3.2 Subsequent clinical management of patients with co-morbid medical conditions

Following the initial consultation, only 10% of patients (n=63), 32 males and 31 females, of the total number (n=662) of consulted patients (cases), were subsequently admitted to either the medical wards or the acute psychiatric inpatient unit, with a confirmed primary Axis I diagnosis associated with one of the four identified co-morbid general medical conditions (delirium, dementia, MGMC and PGMC), Tables 3.5 and 3.6. These 63 patients represent 218 of the initial consultations, which amounts to an average of 3.5 CLP consultations per patient.

Table 3.5 The differences in frequency of consultations of patients admitted with an Axis I diagnosis associated with a co-morbid general medical condition, January to June 2009

Axis I diagnosis	Consultations	Confirmed cases	Average number of consults
Delirium	107	34	3.1
Dementia	35	13	2.7
PGMC*	54	10	5.4
MGMC**	22	6	3.7

PGMC* - psychosis due to general medical condition; MGMC** - mood due to general medical condition

Table 3.6 Cases admitted with a confirmed Axis I diagnosis associated with a defined co-morbid general medical condition, January to June 2009

Axis I	Frequency
Delirium	34 (54%)
Dementia	13 (26.6%)
PGMC*	10 (15.9%)
MGMC**	6 (9.5%)

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Total	**63 (100%)**

* PGMC - psychosis due to general medical condition;
** MGMC - mood due to general medical condition

Most of these cases with a confirmed Axis I diagnosis associated with one of these four co-morbid general medical conditions, were admitted to the medical wards (n=37; 67.3%), compared to admissions to the psychiatric ward (n=18; 32.7%). Most of these patients admitted to the medical wards, had a diagnosis of delirium (n=28; 51.9%). Of the total of 13 patients with dementia, more were however admitted to the psychiatry ward (n= 8; 14.6%). Patients with the diagnoses of MGMC (n= 2; 3.6%) and PGMC (n= 4; 7.3% and n=5; 9.1%) were more or less equally distributed between the psychiatric and medical wards (Figure 3.1).

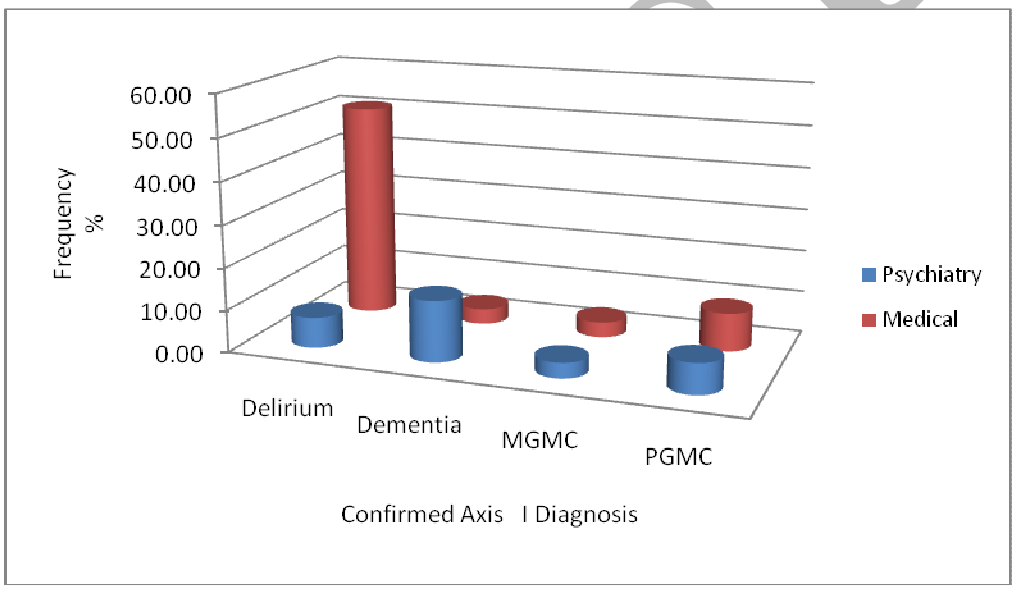


Figure 3.1 Admission of patients with a confirmed Axis I diagnosis associated with a defined co-morbid general medical condition, January to June 2009

3.2.1 Age and gender of patients admitted

Age was recorded for only 55 of the 63 cases admitted to the medical or psychiatric wards with the four co-morbid medical diagnoses. No patients younger than 15 years were admitted during the study period. The majority of patients were between the ages 31 to 45 years (Table 3.7). The age of most patients admitted with a confirmed Axis I diagnosis associated with these co-morbid medical conditions, was between 16 and 45 years (Figure 3.2). For this group, most patients were diagnosed with delirium (n= 22; 34.9%), while patients aged 46 years and older, more were diagnosed with dementia (n= 11; 17.5%). MGMC was mostly diagnosed in patients between the ages 31 to 45 years (n= 5; 7.9%), and a diagnosis of PGMC was only made in patients younger than 60 years (n=10; 15.9%). No patients over 60 years of age were diagnosed with MGMC or PGMC.

Table 3.7 Age of patients admitted to the medical and psychiatric wards at HJH following psychiatric consultation, January to June 2009

Age categories	Total number Psychiatry Unit	Total number Medical Wards
16-30 years	3 (5.5%)	10 (18.2%)
31-45 years	5 (9.1%)	13 (23.6%)
46-60 years	6 (11%)	9 (16.4%)
>60 years	4 (7.3%)	5 (9.1%)
Total	**18 (32.7%)**	**37 (67.3%)**

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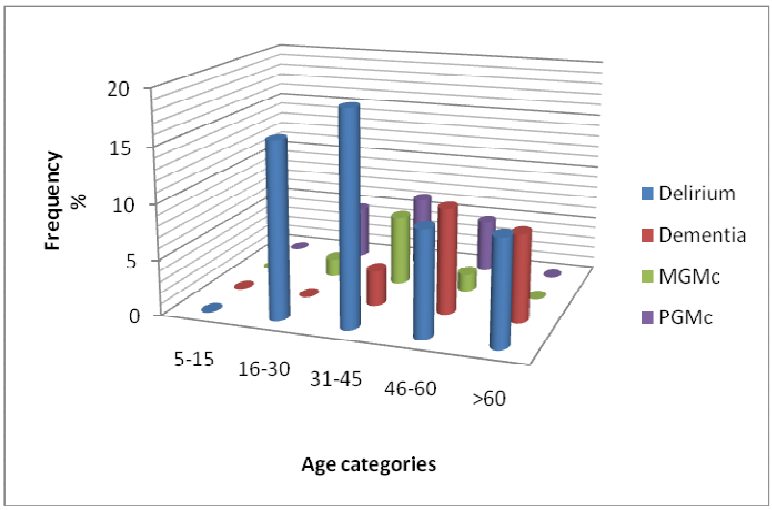


Figure 3.2 Age distribution of patients with a confirmed Axis I diagnosis associated with a defined co-morbid general medical condition, January to June 2009

Females (n=26; 47.3%) and males (n=29; 52.7%) were equally represented in the group of 55 patients for whom the admission ward was documented. There were, however, close to three times as many females (n=18; 34.6%) admitted to the medical wards, compared with admissions to the psychiatric ward (n=7; 12.7%), Figure 3.3.

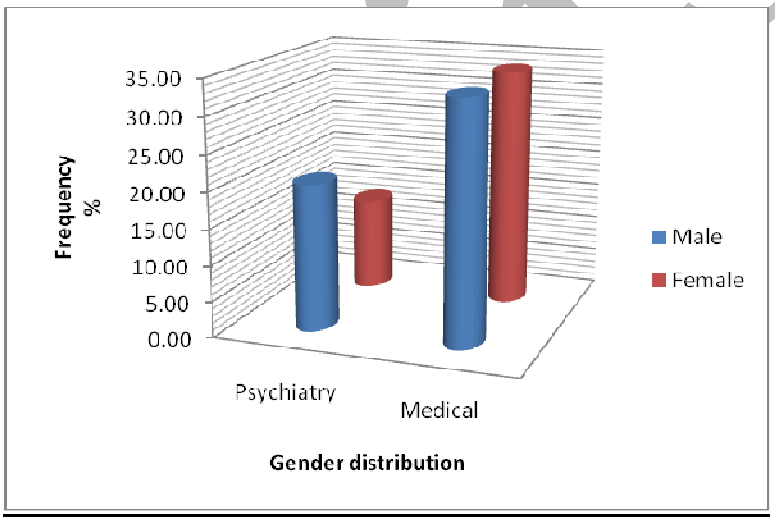


Figure 3.3 Gender of patients admitted to the medical and psychiatric wards at HJH following psychiatric consultation, January to June 2009

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Gender was fairly equally distributed in the patients with a diagnosis of delirium. While there were a higher proportion of females with a diagnosis of dementia (n= 8; 12.7%) and MGMC (n= 4; 6.3%), more males were diagnosed with PGMC (n= 10; 15.9%). There was in fact no female patient with a diagnosis of PGMC (Figure 3.4)

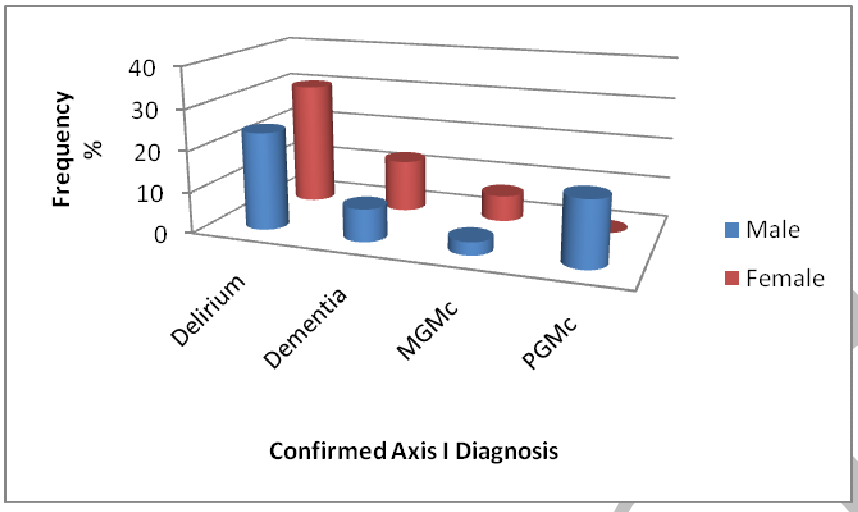


Figure 3.4 Gender distribution of patients with a confirmed Axis I diagnosis associated with a defined co-morbid general medical condition, January to June 2009

3.2.2 Psychiatric symptoms documented for patients admitted

Psychiatric symptoms identified for patients admitted to the wards included: hallucinations (e.g. auditory; visual; olfactory; and gustatory); delusions; attention disturbances; mood (depressive; irritable; mixed and elevated); disturbances in consciousness; memory disturbances; and disturbed behaviour (e.g. disorganized; restlessness; aggression). It was further considered how many of these symptoms affected and was documented in an individual patient, to mark severity of the psychiatric presentation (Table 3.8).

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Table 3.8 **Individual number of specific psychiatric symptoms per Axis I diagnosis of patients admitted to the medical and psychiatric wards at HJH following psychiatric consultation, January to June 2009**

Psychiatric symptoms	Number of users n = (%)
Auditory hallucinations	20 (36.4%)
Visual hallucinations	14 (25.5%)
Olfactory hallucinations	0 (0%)
Gustatory hallucinations	0 (0%)
Tactile hallucinations	0 (0%)
Delusions	25 (45.5%)
Disturbed behavior	40 (72.7%)
Disturbed memory	14 (25.5%)
Disturbed attention	3 (5.5%)
Mood symptoms	12 (21.8%)

The most commonly documented psychiatric symptom in the sample of patients with a confirmed axis I diagnosis associated with one of the co-morbid diagnosis was disturbed behaviour at (n= 40; 72.7%). This was only followed by delusions and auditory hallucinations (n= 25; 45.5%) and (n=20; 36.4%) respectively. It was further documented that the majority of patients, had a cluster of three or more psychiatric symptoms (n=28; 50.9%). A majority of them (n= 18; 32.7%) were admitted and managed in the medical wards, and about only a fifth to the psychiatric ward (n= 10; 18.2%). The most common combination was auditory hallucinations; visual hallucinations; altered consciousness; and behavioural disturbance, albeit only three times (n= 3; 0.11%). This combination was documented most commonly in patients with

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a diagnosis of delirium (Table 3.9). Delirium also had the most documented symptoms, especially hallucinations.

Table 3.9 Psychiatric symptoms of patients admitted to the medical and psychiatric wards at HJH following psychiatric consultation, January to June 2009

Psychiatric symptoms	Number Psychiatry Unit	Number Medical wards	Total
1*	4 (7.3%)	6 (10.9%)	10 (18.2%)
2**	4 (7.3%)	13 (23.6%)	17 (30.9%)
3***	10 (18.2%)	18 (32.7%)	28 (50.9%)
Total	**18 (32.7%)**	**37 (67.3%)**	**55 (100%)**

1* =1 or less psychiatric symptoms (auditory hallucinations; or visual hallucinations; etc)

2** = 2 psychiatric symptoms (combinations of two symptoms i.e. auditory and visual hallucinations; auditory hallucination and behavioural disturbances; etc) present;

3*** = 3 or more combinations of psychiatric symptoms (auditory hallucinations + visual hallucinations + disturbed behaviour; etc)

3.2.3 Psychiatric symptoms per Axis I diagnosis

The frequency of psychiatric symptoms was disproportionately higher in patients admitted with a diagnosis of delirium (n=34; 54%), Table 3.10. This diagnosis would explain why the majority of these patients with more symptoms were admitted to the medical wards, compared to those admitted to the psychiatric ward. Patients with MGMC had the least psychiatric symptoms i.e. psychotic and disturbed behaviour.

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Table 3.10 Psychiatric symptoms per Axis I diagnosis of patients admitted to the medical and psychiatric wards at HJH following psychiatric consultation, January to June 2009

Psychiatric symptoms	Delirium	Dementia	#MGMC	##PGMC
1*	7 (11.1%)	1 (1.6%)	1 (1.6%)	2 (3.2%)
2**	13 (20.6%)	4 (6.4%)	2 (3.2%)	2 (3.2%)
≥3**	14 (22.2%)	8 (12.7%)	3 (4.8%)	6 (9.5%)
Total	**34 (54%)**	**13 (20.6%)**	**6 (9.5%)**	**10 (15.9%)**

PGMC - psychosis due to general medical condition;
MGMC - mood due to general medical condition
1* =1 or less psychiatric symptoms (Auditory hallucinations; or visual hallucinations; etc
2** = 2 psychiatric symptoms (combinations of two symptoms i.e. auditory and visual hallucinations; auditory hallucination and behavioural disturbances; etc) present;
3*** = 3 or more combinations of psychiatric symptoms (auditory hallucinations + visual hallucinations + disturbed behaviour; etc)

3.2.4 Underlying co-morbid medical conditions

The underlying associated medical conditions in patients admitted for delirium, dementia and psychotic or mood disorders due to a general medical condition during the study period were categorized as either systemic ("extra-cranial"), or neurological ("intra-cranial") causes. While HIV/AIDS related presentations were included as a "systemic" cause in this study's analysis, it should be regarded as an overlapping cause, as in its later stages of the illness the brain and other "intracranial" structures, are particularly affected.

Systemic causes as the underlying medical condition were documented in a total of 34 of these cases and included: infective causes (HIV/AIDS); toxic causes (overdose with

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medication and ingestion of other toxic substances); metabolic (diabetes mellitus); and nutritional insufficiencies. Most patients with underlying systemic causes were due to HIV infection and presented often with later stages of AIDS (n=23; 67.7 %), while most of them were admitted to a medical ward (n=26; 76.5%), Table 3.11 and Figure 3.5.

Table 3.11 Underlying medical conditions in patients admitted to the medical and psychiatric wards at HJH following psychiatric consultation, January to June 2009

Systemic conditions	Number Psychiatry Ward	Number Medical Wards	Total
HIV	4 (11.8%)	19 (55.9%)	23 (67.7%)
Toxic	1 (2.9%)	3 (8.8%)	4 (11.8%)
Metabolic	3 (8.8%)	3 (8.8%)	6 (17.6%)
Nutritional	0	1 (2.9%)	1 (2.9%)
Total	**8 (23.5%)**	**26 (76.5%)**	**34 (100%)**

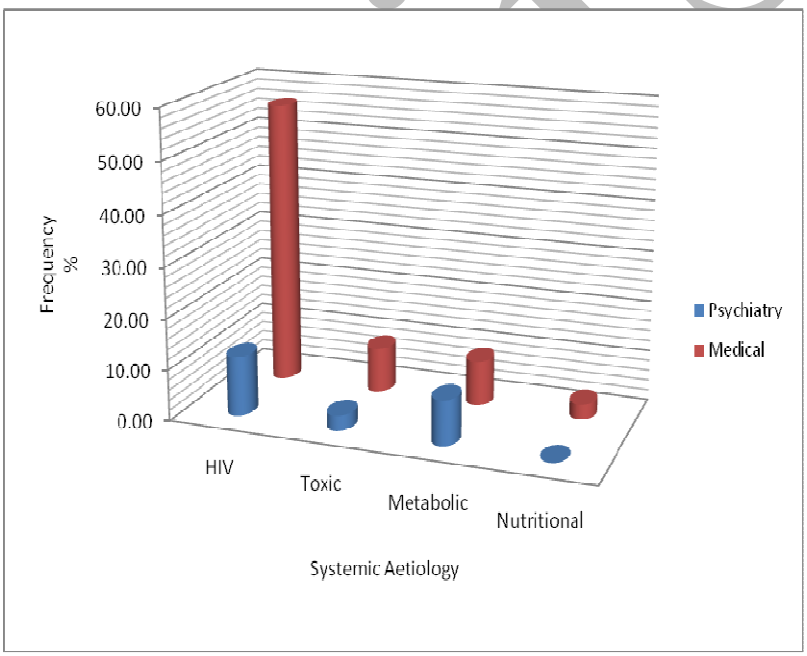


Figure 3.5 Underlying systemic conditions in patients admitted to the medical and psychiatric wards at HJH following psychiatric consultation, January to June 2009

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Underlying neurological (intracranial) aetiological factors included vascular conditions, cerebral or meningeal infections, trauma, and epilepsy. Intracranial causes were documented for 32 cases, with vascular problems i.e. history of/ clinical features of cerebrovascular accidents (n=11; 34.4%) and epilepsy (n=14; 43.8%) the most common causes. The majority of patients with epilepsy were admitted in the medical wards, whereas those with an underlying vascular cause were evenly distributed between the medical and the psychiatric wards (Figure 3.6).

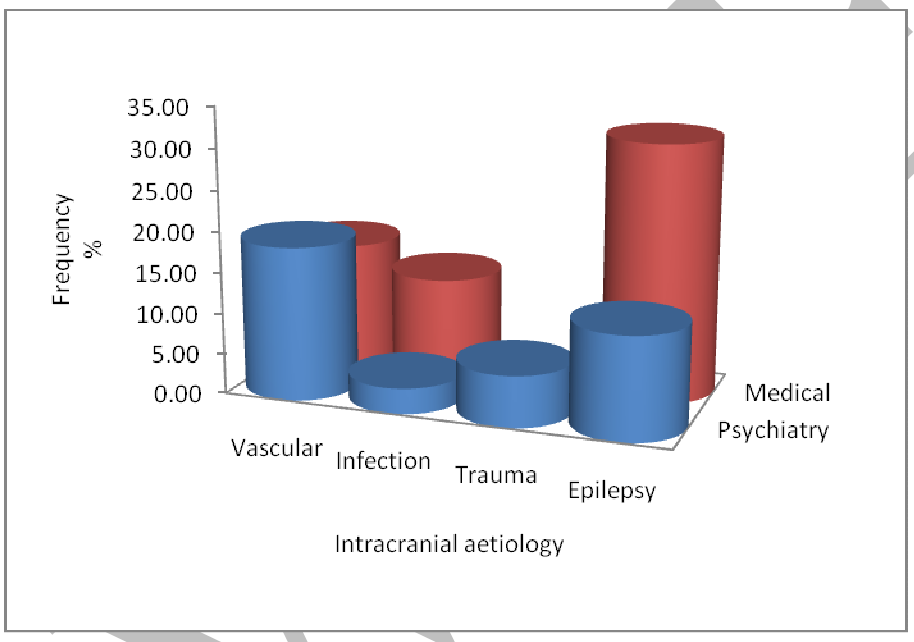


Figure 3.6 Underlying neurological conditions in patients admitted to the medical and psychiatric wards at HJH following psychiatric consultation, January to June 2009

3.2.5 Prevalence of Axis I diagnoses associated with co-morbid medical conditions

As noted before, patients (cases) admitted with a confirmed Axis I diagnosis (delirium, dementia, MGMC, PGMC) associated with one of these four co-morbid medical conditions following the initial psychiatric consultation, represented about 10% of the total patients (cases) that were consulted by the HJH Department of Psychiatry during the study period (Table 3.12). This translated into approximately 10 patients per month on average. Delirium was the most common diagnosis in these patients with an associated co-morbid medical condition (n=34; 5.2%) and the least common was MGMC (n=6; 0.9%).

Table 3.12 Prevalence of Axis I diagnoses associated with a defined co-morbid medical condition in patients admitted to the medical and psychiatric wards at HJH following psychiatric consultation, January to June 2009

Axis 1 diagnosis	Male	Female	Total
Delirium	15 (2.3%)	19 (2.9%)	34 (5.2%)
Dementia	5 (0.8%)	8 (1.2%)	13 (2%)
MGMC**	2 (0.3%)	4 (0.6%	6 (0.9%)
PGMC*	10 (1.5%)	0	10 (1.5%)
Total	**32 (4.8%)**	**31 (4.7%)**	**63 (9.5%)**
Total cases consulted	**305**	**357**	**662**

PGMC* - psychosis due to general medical condition; MGMC** - mood due to general medical condition

The most patients consulted were between the ages of 31 and 45 years (n=22; 3.4 %), and the lowest number were for those older than 60 (n=11; 1.7), Figure 3.7; Table 3.13.

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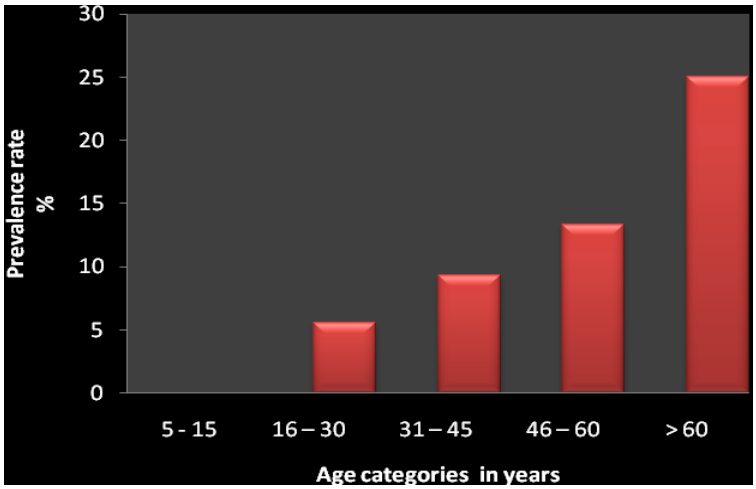


Figure 3.7 **Axis I diagnoses associated with defined co-morbid medical conditions according to age categories for patients referred for consultation to the HJH Department of Psychiatry, January to June 2009**

Table 3.13 **Prevalence of acute co-morbid medical conditions according to age categories for patients referred for consultation to the HJH Department of Psychiatry, January to June 2009**

	CONSULTATIONS PER AGE CATEGORIES (years)					
Confirmed Axis I diagnoses associated with co-morbid medical condition	**5- 15**	**16–30**	**31–45**	**46–60**	**> 60**	**TOTAL**
Delirium	0	10 (1.5%)	12 (1.8%)	6 (0.9%)	6 (0.9%)	34
Dementia	0	0	2 (0.3%)	6 (0.9%)	5 (2%)	13
MGMC**	0	1 (0.2%)	4 (0.6%)	1 (0.2%)	0	6
PGMC*	0	3 (0.5%)	4 (0.6%)	3 (0.5%)	0	10
Total admissions	0	14 (2.1%)	22 (3.4%)	16 (2.4%)	11 (1.7%)	63 (10%)
Total patients consulted	8 (0)	248 (5.6%)	236 (9.3%)	120 (13.3%)	44 (25%)	656 (100%)

PGMC* - psychosis due to general medical condition; MGMC** - mood due to general medical condition

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The total prevalence rates of the Axis I diagnosis associated with a co-morbid medical condition showed an increasing trend in relation to age. The ages between 16–30 years had the lowest prevalence rate (5.6%) and the patients over 60 years of age had the highest prevalence rate (25%).

3.2.6 Outcome of consultation

There was no detailed documentation available to indicate how the conditions identified resolved at the point of discharge. But the two main outcome variables that were documented for these 63 patients subsequently admitted to either a medical or the psychiatric ward after initial consultation during the study period, were: the length of in-patient stay (LOS); and where these patients were referred to on discharge (referral endpoints). The median LOS was calculated for all the demographic and clinical variables reviewed. This value varied depending on the variable that was assessed (Table 3.14). There was just a slight difference in median LOS for the patients in the medical wards (13 %), and those who were admitted to the psychiatric ward (11 %). Patients with an underlying metabolic “systemic” cause and those with vascular neurological causes were the only two categories who had a slightly higher median LOS (21.5 % and 24 % respectively). The sample size was, however, too small to calculate any statistical significance.

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Table 3.14 Median for length of in-patient stay (LOS) of patients admitted to the medical and psychiatric wards at HJH following psychiatric consultation, January to June 2009

Variable		Median (%)	Range (days)
Wards	Psychiatry	11	3 - 62
	Medical	13	1 - 89
Age (years)	16-30	10.5	4 – 43
	31-45	13.5	1 – 89
	46-60	12	3 – 62
	>61	16	4 - 30
Gender	Male	11	1 – 48
	Female	12.5	2 - 89
Confirmed Axis I diagnoses associated with one of the four defined co-morbid medical condition	Delirium	13.5	1 – 48
	Dementia	13	5 – 89
	MGMC**	12.5	4 – 29
	PGMC*	7.5	3 - 51
Systemic (extra-cranial) causes	HIV	18	1 – 89
	Toxic	10.5	4 – 29
	Metabolic	21.5	4 – 62
	Nutritional	5	5
Neurological (intra-cranial) causes	Vascular	24	4 - 89
	Infection	18	1 – 38
	Trauma	14	14
	Epilepsy	8	3 – 29

PGMC* - psychosis due to general medical condition; MGMC** - mood due to general medical condition

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Referral endpoints were documented for only 35 of the 63 patients admitted after initial consultation, mostly for those who were admitted to the psychiatric ward. Most of these patients were, on discharge, referred to the HJH psychiatric outpatient clinic (n = 18; 51.4 %) and to medical specialist clinics and (n = 9; 25.7%). There were only a very small proportion of patients who were transferred to other psychiatric hospitals (n = 3; 8.6%). The major proportion (n = 26; 74.3%) of the patients were referred for further psychiatric follow-up compared to small proportion (n =9; 25.7%) that were referred to the medical specialist clinics (Table 3.15).

Table 3.15 Referral endpoints on discharge of patients with confirmed Axis I diagnosis associated with a defined co-morbid medical condition at the HJH Department of Psychiatry, January to June 2009

Co-morbid Medical Condition	Medical Specialist Outpatients	Psychiatric hospitals (Tara,# Sterkfontein, Life Health ##)	Community Psychiatry clinic	HJH Psychiatry Outpatients	Total
Delirium	7 (20%)	1 (2.9%)	2 (5.7%)	9 (25.7%)	19 (54.3%)
Dementia	1 (2.9%)	1 (2.9%)	2 (5.7%)	4 (11.4%)	8 (22.9%)
MGMC**	0	0	1 (2.9%)	1 (2.9%)	2 (5.7%)
PGMC*	1 (2.9%)	1 (2.9%)	0	4 (11.4%)	6 (17.1%)
Total	**9 (25.7%)**	**3 (8.6%)**	**5 (14.3%)**	**18 (51.4%)**	**35 (100%)**

* = psychosis due to general medical condition;

** = mood due to general medical condition

= Tara, the H. Moross Centre

= Life Health Esidimeni facilities (including Waverley, Witpoort or Randfontein Care Centres)

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CHAPTER 4 DISCUSSION

As a retrospective clinical record review, this study was conducted in a hospital setting and not a research environment, and as such has the inherent limitations of incomplete data collected from information available in the existing hospital records. It was nonetheless helpful in describing and highlighting the situation with regard to CLP services in HJH, as a local general specialist level hospital in a developing country.

The most likely patient to be consulted by the CLP team at HJH was a female in her early adulthood. This deviated slightly from the findings by Lipowski and Wolston, in which 70% of the subjects were between 20 and 60 years of age.[20] In this study the patients between the ages 16 and 60 years made up to 92 % of the sample. More patents in younger age groups were consulted in this study, than in the Lipowski study mentioned above. Reasons for this could be: 1) aetiological factors related to the medical problems (developed versus developing countries); 2) the study period was only six months; and 3) only one general hospital was studied here. HJH and its psychiatric unit is a facility for adults and adolescents older than 13 years, which accounts for the very low representation of the paediatric patients in this sample. In a Kenyan study by Ndetei et al., the patients ranged from 18 to 92 years, with a mean age of 34.2 years.[26] They reported that more than half (52.4%) were aged 30 years or less, and that 53.7 % were females.[26] This HJH study population closely resembled these findings.

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Unlike the findings of the study by Lipowski et al., in which depressive disorders were the most common provisional diagnoses made, in this HJH study it was found that most patients consulted were not given any Axis I mental disorder after initial consultation, but rather a Axis II diagnosis with personality problems or intellectual impairment. In the HJH study, suicide attempts and behaviour did not feature in the top ten reasons for referral, as it did in e.g. the Gangat study, because at HJH referrals for consultation following a suicide or para-suicide attempt, were attended to by the Department of Psychology and these numbers were not included in the data for this study.[20,23] Some patients who presented with a suicide attempt with a confirmed mood disorders on assessment, were referred to psychiatry by the attending psychologists for further management.

A local study by Gangat et al., quoted a table from international diagnostic patterns in consultation-liaison psychiatry.[23] This table listed “organic reaction” (delirium as defined by DSM III) to be in the top six on the diagnostic patterns ranging from 5.5 % to 19.3%, which concurs with the findings of this HJH study. As a consequence, the majority of patients in this HJH study were admitted to the medical wards, due to the presenting symptom complex of delirium, which includes psychotic symptoms such as hallucinations and delusions. This finding should be taken into consideration when deciding on the nursing staff establishment of the medical wards, in that it would be helpful to have nurses trained to manage these patients.

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Delirium is generally known to occur most commonly in the elderly population. In his review, Meagher reported that delirium occurred in about 15 to 20 % of the general admissions, and with higher frequency in the elderly.[14] This HJH study demonstrated, contrary to this notion, that delirium was the most common of the psychiatric disorders associated with a co-morbid medical condition in younger patients (more or less equal per gender) where over 40% of patients in the sample were younger than 60 years. This finding can probably be best explained by the known higher prevalence of advanced HIV/AIDS in young adults in the HJH study. The World Health Organization's (WHO) 2009 AIDS Epidemic Update reported that sub-Saharan Africa still remained the region most heavily affected by HIV, and accounted for 67% of HIV infections worldwide, of which 68% of new HIV infections in 2008 occur among adults and 91% of new HIV infections among children.[27] The WHO report highlighted that HIV prevalence generally tend to peak at a younger age for women than for men, i.e. between the ages of 30 and 34, while men experience the highest levels of HIV infection in their late 30s and early 40s. As a result of these trends, it should follow that complications and HIV/AIDS associated deaths will probably peak according to similar age trends. These findings could possibly support the shift in the prevalence of delirium and the other psychiatric disorders due to general medical conditions, as demonstrated in this study.

While dementia is usually diagnosed more commonly in persons older than 60 years, e.g. according to the studies by Ferri et al. on the global prevalence of dementia, in this HJH study, dementia were diagnosed mostly in patients younger than 60 years.[17,19] These Ferri studies also reported that Africa had the lowest prevalence rates of

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dementia for all age groups, although they focussed on the prevalence of dementia rather than its subtypes. Prevalence rates for MGMC that are due to general medical conditions not directly affecting the CNS were reported to be far more variable, while those that are due to neurological conditions range from 25% to 40%.[12] The prevalence rate from the HJH study was low, but can most probably be accounted for by the small sample size. This will also apply for the figures on PGMC.

The underlying co-morbid central nervous system conditions documented in this study included cerebro-vascular conditions, infections, trauma, and epilepsy. Although HIV/AIDS was regarded as a "systemic" medical condition in this study, it is highly possible that there may also be an overlap between patients with HIV/AIDS and other intracranial (CNS) conditions. In a prospective study by Mochan et al., although there was no clear evidence linking vasculopathy or vasculitis with HIV-associated stroke, an association greater than chance between HIV and stroke has been suggested.[28] Satishchandra et al., reported that due to the increasing burden of HIV infection in less developed countries, the HIV spectrum of disease might be a common cause of symptomatic seizures, especially in advanced cases in which opportunistic infections are commonly associated.[29] In this HJH study, vascular problems and epilepsy were the most commonly associated neurological causes represented respectively by 34.4 % and 43.8 % respectively of the study sample.

The main outcomes for patients that were reviewed at HJH during the study period were the LOS and the referral endpoints on discharge. Kishi and colleagues cautioned about

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interpretation of length of in-patient stay in relation to the psychiatric consultation as many factors would influence this.[30] Although it was beyond the mandate of the study to demonstrate this relationship, this HJH study demonstrated that the median LOS was quite variable. It depended on a number of variables. It has however been reported that effective CLP services contribute to a reduction in LOS.[3]

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CHAPTER 5 RECOMMENDATIONS AND CONCLUSION

Vhythilingum and Chiliza emphasized the need and the use of CLP services as an essential sub-specialty in developing countries.[31] Psychiatrist and administrators should devise innovative ways to implement such services even in a less resourced environment. The lack of uniformity in local CLP practice made it difficult to assess the quality of the service and benchmarking it against other centres.[9,22] This has also lead to difficulties in dealing with obscure cases.

Based on the findings of this study and on the literature review for this inquiry, the following recommendations are made with regard to guidelines for local CLP services in a general hospital setting, such as HJH.[1,3,9,10,12,30,32,33]

5.1 Administrative process

5.1.1 Requests for consultation

(1) Templates to include demographic details; time and date of the referral; time and date of response; ward requesting consult; reason for referral; contact details of consultee; and finally space for consultation assessment and recommendations.

(2) To be completed in duplicate.

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5.1.2 Documentation

(1) Administrative staff receiving the referral to ensure that all the required information is completed.

(2) The time of request is recorded for quality assurance.

(3) The referral forms to be filled for record keeping and future references in case of disputes.

5.2 Consultation process

5.2.1 Required skills for the evaluation and treatment of patients with psychiatric disorders in a general medical setting

(1) Competency with regard to the taking of a medical-psychiatric history; recognizing and categorizing symptoms; assessing neurological dysfunction; assessing the risk of suicide; assessing medication effects and drug–drug interactions; knowing when to order and how to interpret psychological testing; assessing interpersonal and family issues; recognizing and managing hospital stressors; placing the course of hospitalization and treatment in perspective; formulating multi-axial diagnoses; performing psychotherapy; prescribing and managing psychopharmacological agents; assessing and managing agitation; assessing and managing pain; administering drug detoxification protocols; making medico-legal determinations; applying ethical decisions; initiating transfers to a psychiatry service; assisting with disposition planning.

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5.2.2 Procedures and arrangements

(1) The consultation process should clearly address the problem for which the request had been initiated for.

(2) All consultations should be done within 24 to 48 hours.

(3) When the consultee asks for a psychiatric consultation, the consultant should establish the urgency of the consultation (i.e., emergency or routine - within 24 hours).

(4) The following will constitute emergencies that would need urgent consultation: aggressive behaviour; destructive behaviour; and suicidal behaviour.

(5) Psychiatric consultation involves an initial consultation and follow-up examinations (two on average).

(6) The ideal setting is in a location where medical and psychiatric capabilities are integrated.

(7) Follow-up outpatient psychiatric care for patients with psychiatric problems related to a serious or persistent medical condition should, when possible, be provided at the same treatment facility where the patient receives primary medical care.

5.3 Staffing

In all medical settings, there must be adequate staffing to provide psychiatric consultation 24 hours per day, throughout the year. In settings where psychiatric

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residents perform consultations, faculty staffing must be adequate to provide supervision 24 hours per day. The team should be composed of at least a senior specialist psychiatrist; a senior registrar; senior psychologist; a psychiatric nurse; and a social worker.

5.4 Training

To build skills in this type of service, it is important to have practitioners rotating for extended periods. The current rotation system of six months is a reasonable period. This will facilitate continuity of care ensuring that patients are not lost to follow up, and also adequate exposure of the trainee to the wide spectrum of conditions referred to CLP services. According to Aladjem in Kaplan and Sadock,[1] there is a number of areas that need to be covered by CLP rotation, including: acute stress disorder; aggression and impulsivity; AIDS and HIV disease; alcohol and drug abuse in the general medical setting (including withdrawal syndromes); anxiety in the general medical setting; coping with illness; death, dying, and bereavement; delirium and dementia; determination of capacity and other forensic issues in CLP; factitious disorders and malingering; pain; personality disorders in the general medical setting; psychiatric manifestations in medical and neurological illness; psychological factors affecting medical conditions; psycho-oncology; psychopharmacology of the medically ill (including drug interactions); psychotherapy of the medically ill; somatoform disorders; and suicide (Table 5.1). These topics could be covered in terms of case presentations or journal club presentations, to ensure that the trainees have had some exposure to the management of these areas.

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Table 5.1 Areas to be covered in a consultation-liaison psychiatry rotation

Acute stress disorder
Aggression and impulsivity
AIDS and HIV disease
Alcohol and drug abuse in the general medical setting (including withdrawal syndromes)
Anxiety in the general medical setting
Coping with illness
Death, dying, and bereavement
Delirium and dementia
Determination of capacity and other forensic issues in CLP
Factitious disorders and malingering
Pain
Personality disorders in the general medical setting
Psychiatric manifestations in medical and neurological illness
Psychological factors affecting medical conditions
Psycho-oncology
Psychopharmacology of the medically ill (including drug interactions)
Psychotherapy of the medically ill
Somatoform disorders
Suicide
AIDS, acquired immune deficiency syndrome; HIV, human immunodeficiency virus.

Adopted from the Kaplan and Sadock Comprehensive Textbook of Psychiatry 8th edition[1]

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5.5 Research

As this is a growing field, it is imperative to build up and maintain the database of CLP services rendered. It was difficult to comment on the efficiency, and effectiveness of the service in this study, as there were no markers documented to benchmark the service with others like it. Apart from assisting with improving the service, this will provide important a contribution for research, particular with regard to local and international trends.

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Appendices

1. Appendix A. Request for consultation form

Department of Psychiatry: Consultation and Liaison Unit, Helen Joseph Hospital
Private Bag X47 Auckland Park 2006; Tel: 011-489 0619; Fax 011-489 0620 email: bernardj@gpg.gov.za

CONSULTATION REQUEST

DATE..... **REFERRING DEPT**.....

CONSULTANT.....

REGISTRAR.....

PATIENT NAME ..... **HOSP NO**.....
WARD NO ..... **BED NO**..... **ADMISSION DATE** .....

DATE OF BIRTH ..... **GENDER** .....

1. CLINICAL BACKGROUND (brief history, clinical findings, diagnosis, treatment) .....

.....
.....
.....

2. REASON FOR THIS CONSULTATION REQUEST .....
.....

.....
.....

3. SIGNIFICANT INVESTIGATIONS (blood, CSF, radiological) .....

.....
.....

SIGNATURE.....**DESIGNATION**..... **CONTACT NO**.....

ASSESSMENT

ASSESSING DR ..... **DESIGNATION**.....
DATE ..... **TIME**.....

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1. SUMMARY OF FINDINGS (main compliant, previous and personal history, MSE)

……
……
……
……
……
……
……
……
……

2. PROVISIONAL DIAGNOSIS

I	(1)
	(2)
II	
III	
IV	
V	GAF on assessment

3. MANAGEMENT RECOMMENDATIONS (Bio-psycho-social)

……
……
……
……
……
……

4. ARRANGEMENTS MADE AND DATE(S)

NO FURTHER FOLLOW-UP	PSYCHIATRY OPD	PSYCHOL OPD	SOCIAL WORK	ADMISSION (WD 2)	RE-CONSULT (ON REQUEST)
	Date	Date			

5. DURATION

0-20 MINUTES	20-40 MINUTES	40-60 MINUTES	>60 MINUTES

SIGNATURE ……..……..... **CONTACT NO**..……..

CONSULTANT ……..... **SIGNATURE** ….....……..… **DATE**…....……

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2. Appendix B. Data Sheet 1

Data sheet 1 – Demographic and clinical profile of users referred for a psychiatric consultation

Record no	( )									
1. Referring dept	(1) Med	(2) Sur	(3) ICU	(4) CAS	(5) Unk					
2. Age in years	(1) 5-15	(2) 16-30	(3) 31-45	(4) 46-60	(5) > 60	(6) Unk				
3. Gender	(1) M	(2) F	(3) UNK							
4. Clinical Assessment										
- Reason	(1) ASS	(2) BEH	(3) PSY	(4) CON	(5) MOOD	(6) PSS	(7) SAS	(8) Unk		
5. Provisional diagnosis										
- Axis I	(1) DEL	(2) DEM	(3) MD	(4) PsD	(5) MGMC	(6) PGMC	(7)SIPD			
	(8) SIMD	(9) SUB	(10) OTH	(11) Unk	(12) No Axis 1					
- Axis I Diff d	DEL	DEM	MD	PsD	MGMC	PGMC	OTH			
- Axis I CM	MGMC	PGMC	Other							
- Axis I CM2	MGMC	PGMC	Other							
- Axis II	(1) A	(2) B	(3) C	(4) OTH	(5) MR					
- Axis III	(1) CNS	(2) MET	(3) CPD	(4) SIL	(5) SIW	(6) OTH	(7) Unk			
- Axis IV	(1) RP	(2) FP	(3) AP	(4) SIW	(6) OTH	(7)				
6. Follow-up /Management	(1) NONE	(2) OPD	(3) PSY	(4) SW	(5) ADM	(6) Re-con	(7) COMM	(8) OTH	(9) RIP	(10) Unk

WHSEC

3. Appendix C.

Data sheet 2 – Clinical management of users diagnosed with an acute co-morbid medical disorder

Record no ( )

1. Age

(1) 5-15	(2) 16-30	(3) 31-45	(4) 46-60	(5) > 60	(6) Unk

2. Gender

(1) M	(2) F	(3) Unk

3. Clinical Diagnosis

Intracranial	Vas (1)	Inf (2)	Trm (3)	Epi (4)	Anox(5)	SOL(6)	Deg(7)	NPH(8)
Extra-cranial	Inf (1)	Tox(2)	End(3)	Met(4)	Hyp(5)	Nut(6)		
Others	Rhm(1)							

Axis III

Del (1)	Dem (2)	MGMc (3)	PGMc (4)	Comb (5)	Unk (6)

Axis I

Psych-symp Physical Sx

AHN(1)	VHN(2)	MOO(3)	Att(4)	Cons(5)	Mem(6)	Beh(7)	Oth(8)	Unk(9)	
General				System					
CL	Yes(1)	No(2)	Unk(3)	CNS	Foc(1)	Nec(2)	Oth(3)	Nil(4)	Unk(5)
ANA	Yes(1)	No(2)	Unk(3)	PUL	Tac(1)	Dys(2)	Oth(3)	Nil(4)	Unk(5)
J	Yes(1)	No(2)	Unk(3)	CVS	Htn(1)	Con(2)	Oth(3)	Nil(4)	Unk(5)
CLU	Yes(1)	No(2)	Unk(3)	GIT			Oth(3)	Nil(4)	Unk(5)
O	Yes(1)	No(2)	Unk(3)	GUT			Oth(3)	Nil(4)	Unk(5)
L	Yes(1)	No(2)	Unk(3)	MUSK			Oth(3)	Nil(4)	Unk(5)
D	Yes(1)	No(2)	Unk(3)						

Vitals on adm

Temp	High(1)	Low(2)	Normal(3)	Unk(4)
BP	High(1)	Low(2)	Normal(3)	Unk(4)
Pulse	High(1)	Low(2)	Normal(3)	Unk(4)

4. Management

Blood		**CSF**	**Imaging**	**EEG**	**Adm**	**Hos stay(days)**	**Med Rx**	**PsychoTx**	**Res**
FBC (1)	HIV(6)	Chem(1)	CXR(1)	Yes(1)	Psych(1)	1-7(1)	Ab(1)	AP(1)	Phys(1)
U&E(2)	CD4(7)	Micro(2)	CTB(2)	No(2)	Med(2)	8-14(2)	ARV(2)	AD(2)	Sec(2)
CRP(3)	Cult(8)	Ser(3)	MRIB(3)	Unk(3)	Unk(3)	15-30(3)	AH(3)	BZD(3)	Nil(3)
RPR(4)	Tox(9)	Pres(4)	Oth(4)			>30(4)	HG(4)	AED(4)	Unk(4)
Chol(5)	Oth(10)	Oth(5)	Nil(5)			Unk(5)	Oth(5)	Oth(5)	

6. Outcome

Spec(1)	Tran(2)	PHC(3)	RIP(4)	OPD(5)	**Unk(6)**		

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4. Appendix D.

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG
Division of the Deputy Registrar (Research)

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)
R14/49 Dr NSZ Tema

CLEARANCE CERTIFICATE	**M090648**
PROJECT	Review of the Psychiatric Consultations-Liaison Service at helen Joseph Hospital (New title)
INVESTIGATORS	Dr NSZ Tema.
DEPARTMENT	Department of Psychiatry
DATE CONSIDERED	09.06.26
DECISION OF THE COMMITTEE*	Approved unconditionally

Unless otherwise specified this ethical clearance is valid for 5 years and may be renewed upon application.

DATE 07/06/2011 **CHAIRPERSON** .....
(Professor PE Cleaton-Jones)

*Guidelines for written 'informed consent' attached where applicable
cc: Supervisor : Dr B Janse van Rensburg

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10004, 10th Floor, Senate House, University.
I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. **I agree to a completion of a yearly progress report.**

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES...

5. Appendix E. Abbreviations

A = Cluster A personality disorder/traits

AB = Antibiotics

AcP = Accommodation problems

AD = Antidepressant medication

ADM = Admit (Admission)

AED = Anti-epileptic drugs

AGG = Aggression

AH = Anti-hypertensive medication

AHN = Auditory hallucinations

ANA = Anaemia

ANOX = Anoxia

ANX = Anxiety

AP = Antipsychotic medication

ARV = Antiretroviral medication

ASS = Assessment

ASSa = Assessment and advice by a mental health clinician

ATT = Attention disturbances

B = Cluster B personality disorder/traits

BEH = Behaviour disturbances

BP = Blood pressure

BZD = Benzodiazepines

C= Cluster C personality disorder/traits

CAS = Casualty

Chem = Chemistry

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Chol = Cholesterol level

CL = Colour (pale/plethora)

CLP = Consultation-Liaison Psychiatry

CLU = Clubbing

CM = Comorbid diagnosis

CNS = Central nervous system disorder

COG = Cognitive

COMBI = Combination of above interventions couple with social interventions

(for example occupational therapy, home support or financial support)

COMBS = Combination of symptoms

COMP = Complicated

CON = Confused

CONG = Congestion

CONS = consciousness altered

CPC = Community psychiatry clinic

CRP = C-reactive proteins

CSF = Cerebrospinal fluid

CTB = Cat Scan of the brain

CVP = Cardiopulmonary disorder

CXR = Chest X- Ray

DC = Discharge

DEG = Degeneration

DEH = Dehydration

DEL = Delirium

DEM = Dementia

Diff = Differential diagnosis

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DLN = Delusions

DOC = Determination of capacity

DYS = Dyspnoea

EEG = Electroencephalogram

END = Endocrine

EPI = Epilepsy

F = Female/s

FBC = Full blood count

FOC = Focal sign

FP = Family problems

HG = Hypoglycaemics for Diabetes Mellitus

HJH = Helen Joseph hospital

Hos = Hospital

HTN = Hypertension

HTNo = Hypotension

HYP = Hypoxia

ICU = Intensive care unit

INF = Infection

JAU = Jaundice

LOS= Length of in-patient stay

LYM = Lymphadenopathy

M = Male/s

MD = Mood disorders

MED = Medical ward

Med Rx = Medical treatment

MEM = Memory problems

WitsEd

MET = Metabolic disorder

MGMC = Mood disorder due to general medical conditions

MHCA = Mental Health Care Act

Micro = Microbiology

MOO = Mood symptoms (sad, irritable, elated)

MR = Mental retardation

MRIB = Magnetic Resolution Imaging of the brain

NEC = Neck stiffness

NOI = No intervention

NPH = Normal Pressure Hydrocephalus

NUT = Nutritional deficiencies

OED = Oedema

OPD = Out-patient department

OTH = Other

PD = Personality disorders

PGMC = Psychotic disorder due to general medical conditions

PHC = Primary health care clinic

PHI = Physical interventions: for example, medication and electroconvulsive therapy

POS = Postoperative state

PRD = Partially resolved

Pres = Pressures

PRI = Private

PsD = Psychotic disorder

PSI = Psychological interventions

PsW = Psychiatric ward

PSY = Psychosis

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PSYCH = Psychologist

PSYCH Dr = Review by psychiatrist/registrar

Psycho Tx = Psychopharmachotherapy

PUL = Pulmonary

Re-con= Re-consultation

RES = Restless

REST = Restrain

RHM = Rheumatological disorder

RHT = None (N)/ refusal of hospital treatment

RIP = Rest in peace

RP = Relationship problems

RPR = Rapid plasma reagin (RPR) tests.

RSD = Resolved

S/AS = Suicidality/attempted suicide

SA = Substance abuse

SAS = Statistical Analysis Software

SEC = Seclusion

Ser = Serology

SFN = Sterkfontein transfer as in or out-patients

SIL = Systemic illness

SIMD = substance induced mood disorder

SIPD = Substance induced psychotic disorder

SIW = Substance intoxication or withdrawal

SOL = Space occupying lesion

Spec = Specialist

SUR = Surgical

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SW = Social work

Sx = Sign/s

Symp = Symptom/s

SZP = Schizophrenia

TAC = Tachypnoea

TAR = TARA hospital transfer as in or out-patients

Temp = Temperature

TOX = Toxins

Tran = Transfer

TRM = Trauma

U&E = Urea and electrolytes

UNK = Unknown

VAS =Vascular

VHN = Visual hallucinations

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