



# Depression in people living with HIV/AIDS

31<sup>st</sup> October 2011

Mind, body, HAART



# Outline of presentation

- Introduction and context
- Risk and mitigating factors
- Prevention, early identification and intervention of CMD
- Managing patients on HAART and medications used to treat depression and anxiety



# Common Mental Disorders

- Consist of depression, anxiety and substance use disorders
- This presentation will focus on depression and anxiety.
- However, substance use is commonly co-morbid with depression and anxiety
- Triad of disorders – HIV, depression/anxiety and substance use disorders – often all need intervention



# SA national HIV and AIDS Statistics

Whole population (WHO 2010)	11%
Antenatal clinic estimate (2009)	30%
Adults (ages 15-49)	18%
People living with HIV	5.8 million
Incidence (2002 to 2005)	2.0%
Incidence (2005 to 2008)	1.3%
Number of people tested for HIV (>15 years) (2009)	7 million
Total people on ART (Dec 2007)	588,000
People initiated on ART (2009/10)	500,000
Number of PLWHA on ART (WHO 2010)	37%
Accumulated AIDS deaths (June 2008)	2.5 million

# Common Mental Disorders in SA

- Include depressive and anxiety disorders and substance use disorders
- Impact of social circumstances on CMD – poverty, social transition, economic inequity, economic recession, crime and violence

<b>SASH STUDY (Stein, et al) &gt; 18yrs</b>	
<b>Any 12-month disorder</b>	17%
Anxiety disorder	8.1% (6 <sup>th</sup> )
Mood disorder	4.5% (7 <sup>th</sup> )
<b>SUBTOTAL</b>	<b>12.6%</b>
Substance use disorders	5.8% (2 <sup>nd</sup> )
<b>Any lifetime disorder</b>	30.3%
Anxiety disorder	15.8%
Mood disorder	9.8%
<b>SUBTOTAL</b>	<b>25.6%</b>
Substance use disorder	13.3%
<b>&lt; 18yrs onset lifetime</b>	<b>12.8%</b>

# Common Mental Disorders in HIV- infected individuals in SA

SASH STUDY (Stein, et al) > 18yrs		Thom (2008)	
Any 12-month disorder	17%	Current	31%
Anxiety disorder	8.1% (6 <sup>th</sup> )	Anxiety	4.0%
Mood disorder	4.5% (7 <sup>th</sup> )	Mood	17.9%
<b>SUBTOTAL</b>	<b>12.6%</b>	<b>SUBTOTAL</b>	<b>21.9%</b>
Substance use disorders	5.8% (2 <sup>nd</sup> )	SUD	7.62%
Lifetime Substance use disorder	13.3%	SUD	18.87%



# Conclusion

- HIV and CMD are intersecting epidemics



# The psychosocial implications of HIV infection

- HIV infection is a life-threatening illness that cannot be cured
- Untreated, it leads to other illnesses, pain, suffering and early death
- It affects mainly young people of child-bearing age, in the prime of their lives.
- Illness and death as a result of HIV causes disruption of families and an increased economic, social and emotional burden on them.
- Aged parents, siblings and children bear this burden



# The psychosocial implications of HIV infection

- HIV/AIDS remains a stigmatized illness
- Many people who are infected do not know their status and do not access treatment
- People who know that they are HIV-infected often find it difficult to disclose their status because of stigma and the implications of the illness
- HAART has brought some relief, but the implications of life-long treatment are considerable



# **Psychological reactions to HIV+ status**

- Reaction to bad news
- May be superimposed on existing stressors
- May be superimposed on existing mental disorders or vulnerabilities
- Individuals have different coping styles and levels of resilience



# Dealing with bad news

- Is a process
- Similar to bereavement process (shock, denial, bargaining, depression, acceptance)
- Outcome depends on available resources (internal and external) and levels of support
- Psychological adjustments occur over the course of infection (initial, changes in stage of illness, initiation of treatment, side-effects, treatment failures)
- Time frames for adaptation may differ
- When and how to intervene?



# Psychosocial issues with regard to living with HIV in context of HAART

- Disclosure
  - A difficult step to take
  - Fundamental and necessary process in terms of accepting illness and accessing support
- Adherence - Contingent on
  - Good understanding of illness and treatment
  - Good relationships with service providers
  - Social support and effective relationships
- Sexual activity and parenthood
  - Greatest distress immediately after diagnosis
  - Parenthood – conflicts between desires of PLWHA and social judgements



# **Psychosocial issues with regard to living with HIV in context of HAART**

- Decisions taken often in isolation as a result of discrimination and stigma
- If more attention is paid to providing support, can this result in better physical and mental health outcomes?



# The neurobiology of depression and anxiety

- Involves genetic, neuro-endocrine and immunological systems
- Damage in the hippocampus, amygdala and pre-frontal cortex
- Effects of early childhood adversity on the developing brain
- Evidence of repair to damaged areas when treated
- Common areas of damage in HIV brain infection?



# The relationship between HIV and mental disorders

- Prevalence studies of mental disorder in HIV-infected individuals indicate a higher prevalence than in the general population
  - Are people with mental disorder at higher risk of becoming infected? Yes
  - Does being HIV-positive increase the risk of developing a mental disorder? Yes



# **Possible mechanisms for increased mental disorder in PLWHA**

- May be a result of HIV infection due to direct CNS infection or other associated general medical conditions or their treatment
- May result from psycho-social stressors associated with being infected (or other unrelated stressors)
- May be part of the presentation or course of a primary psychiatric disorder



# Aetiology and Risk Factors

## ■ Biological

- Neurotoxicity due to invasion of CNS by virus and the sequelae of immune-compromise (complex relationship between HAND and depression)
- Opportunistic conditions
- Medications used to treat opportunistic conditions
- Antiretroviral medication (efavirenz)
- Substance abuse and dependence (alcohol)



# Aetiology and Risk Factors

## ■ Psychological

- Psychological reactions to the diagnosis (influence of various coping styles)
- Additional stressor of stigma
- Lack of social support
- High prevalence of traumatic events in HIV-infected individuals



# Aetiology and Risk Factors

## ■ Primary psychiatric disorder

- Vulnerability as result of genetic loading or early childhood adversity
- Pre-existing depressive or anxiety disorder



# Screening for CMD

- **Why screen?**
  - Depression and anxiety presentation not clear cut
  - Patients often do not volunteer substance abuse
- **How?**

Clinician administered or self report screening
- **With what?**

(Screening instruments)

  - SAMISS
  - SRQ20
  - CAGE
  - AUDIT
  - ASSIST
  - One or two simple questions?



# Diagnosis of depression

## PRESENTATION

- Low mood or depression
- Loss of interest/anhedonia
- Somatic symptoms
- Insomnia
- Other neuro-vegetative symptoms
- Cognitive symptoms
- Substance abuse

## FEATURES

- Maybe expressed as stress or tension, apathy or amotivation
- Lack of enjoyment in pleasurable activities
- Headache, backache, abdominal pains (atypical, limited response to somatic treatment)
- Common presentation and important symptom
- Fatigue, weight loss, loss of energy and libido
- Poor concentration, memory, negative rumination, feelings of guilt and worthlessness, suicidal thoughts
- This commonly coexists with depression and may be presenting feature



# Diagnosing depression in a medically ill person

- Mood, affect cognitive features are very important to explore
- Neuro-vegetative features may be confusing
- Exclusive or inclusive approaches
- Treat!



# Anxiety Disorders

- Generalised anxiety disorder – may precede, precipitate or co-exist with depressive disorders and substance use disorders
- Post-traumatic Stress Disorder – cause or effect in HIV?
- Panic disorder – impacts on adherence
- Social phobia
- Obsessive compulsive disorder



# Diagnosis of generalised anxiety disorder

## PRESENTATION

- Anxiety – feelings of tension, fear, impending doom
- Insomnia
- Other neuro-vegetative symptoms
- Cognitive symptoms
- Substance abuse

## FEATURES

- May be expressed with physical symptoms – muscle pain, headache, symptoms of autonomic arousal
- Common presentation and important symptom
- Fatigue, weight loss,
- Poor concentration, memory,
- This commonly coexists with anxiety and may be presenting feature



# Management of CMD in context of HAART

- Depressive and anxiety disorders
  - Untreated CMD impacts on disease progression and on adherence to HAART
  - People who are effectively treated do as well as those without these disorders
  - SSRIs are first-line anti-depressant and anti-anxiety agents
  - Psychotherapy effective in treatment of depressive and anxiety disorders



# Management of CMD in context of HAART

- Substance use disorders
  - Substance abuse interferes with ability to adhere to HAART
  - Alcohol interacts with some ARV's – causes unpleasant effects
  - Enzyme induction may cause sub-therapeutic levels of ARVs
  - Brief interventions can reduce harm due to substance abuse – WHO AUDIT and ASSIST-based interventions.
  - Identify hazardous and harmful use – greater burden of disease; less obvious



# Antidepressant and Anti-anxiety Medication

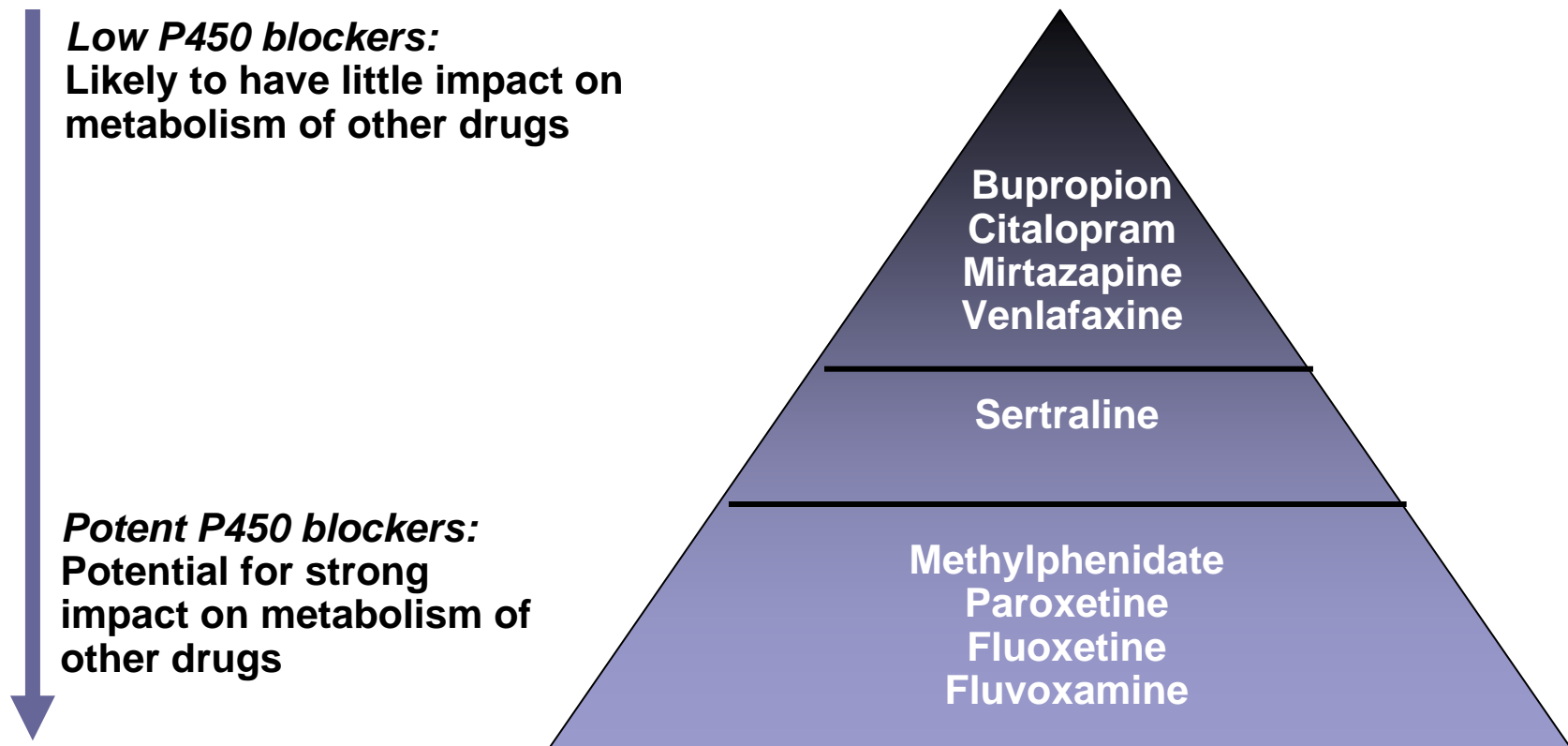
- SSRIs first line treatment
- TCAs can also be first line, especially with painful physical symptoms, but low doses may be insufficient and higher doses may cause interactions or toxicity; side-effects may be troublesome/complicate HIV disease



# ARV Inhibitors or inducers

<b>Drug</b>	<b>Inhibitor or inducer</b>
Tenofovir (TDF) NRTI	No significant interaction
Stavudine (d4T) NRTI	No significant interaction
Zidovudine (AZT) NRTI	Some inhibition
Lamivudine (3TC) NRTI	No significant interaction
Emtricitabine	No significant interaction
Efavirenz (EFV) NNRTI	Inducer
Nevirapine (NVP) NNRTI	Inducer
Lopinavir-Ritonavir PI	Inhibitor

# Selecting an Antidepressant: Potential for Drug-Drug Interactions



Crewe HK, et al. Br J Clin Pharmacol. 1992;34:262-265. Nemeroff CB, et al. Am J Psychiatry. 1996;153:311-320. von Moltke LL, et al. J Clin Psychopharmacol. 1994;14:1-4. von Moltke LL, et al. Clin Pharmacokinet. 1995;20(suppl 1):33.



# Clinically significant drug interactions

- Fluoxetine and inhibitory ARVs (Ritonavir) can produce serotonin syndrome
- Ritonavir and tricyclic antidepressants can produce toxicity – cardiac; CNS; hepatic
- Rifampicin induces liver enzymes leading to a decrease in the therapeutic level of other medications
- Fluconazole inhibits liver enzymes which may lead to an increase in the level of other medications, with a risk of toxicity
- St John's Wort can precipitate serotonin syndrome and interfere with ART



# Psychological interventions

- Cognitive behaviour (CBT) therapy has been shown to be beneficial in general primary care for depressive and anxiety disorders
- Cognitive–behavioural stress management (CBSM) proven effective in the USA\*  
(an adaptation of CBT for people living with HIV in group settings )
- Trauma counselling for PTSD

\* Fernando SJ, Freyburg Z. Treatment of depression in HIV positive individuals: a critical review. Int Rev Psychiatry 2008;20(1):61-7.



# Cognitive behavioural stress management (CBSM)

- Didactics on physiological effects of stress
- Stress management strategies
- CBT interpretation of stress and emotion
  - addressing cognitive distortions, automatic thoughts
- Coping skills training
- Assertiveness training
- Anger management
- Identification of social supports
- Group support



# **Patients Who May Need Psychiatric Consultation or Referral**

- Suicidal thoughts or plan (emergency)
- History of bipolar disorder or a manic episode
- Depressive episode with psychotic features
- More than 1 psychiatric disorder
- Behavioral problems (personality difficulty, self-destructive behaviors)
- Failed first line antidepressant treatment



# Treatment-resistant depressive disorders

- Exclude treatable general medical conditions
- Review all trials of anti-depressant medication
- Avoid benzodiazepines especially in PTSD
- Venlafaxine, duloxetine, bupropion effective
- Try available augmentation strategies
  - AD combinations, eltroxin
- Other augmentation strategies:
  - Addition of testosterone in men
  - Psychostimulants (methylphenidate slow increase to 20-40mg/day)
- ECT: Exclude neurocognitive deficit. Obtain pre-ECT baseline neurocognitive assessment and monitor



# Prevention of CMD in PLWHA

- Ensure that medical management is optimal
- Manage adjustment to diagnosis and disclosure
- Identify high-risk individuals; screen and monitor
- Support groups help



# Common Mental Disorders in HIV-infected individuals

- Twice as common in HIV-infected as in the general population in international and local studies
- Due to genetic, psychosocial factors and HIV CNS infection
- Can be effectively treated using standard medications and psychotherapy
- Be aware of drug interactions, but don't be afraid to treat



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