THE TRIPLE CHALLENGE: WHEN DUAL DIAGNOSIS MEETS HIV

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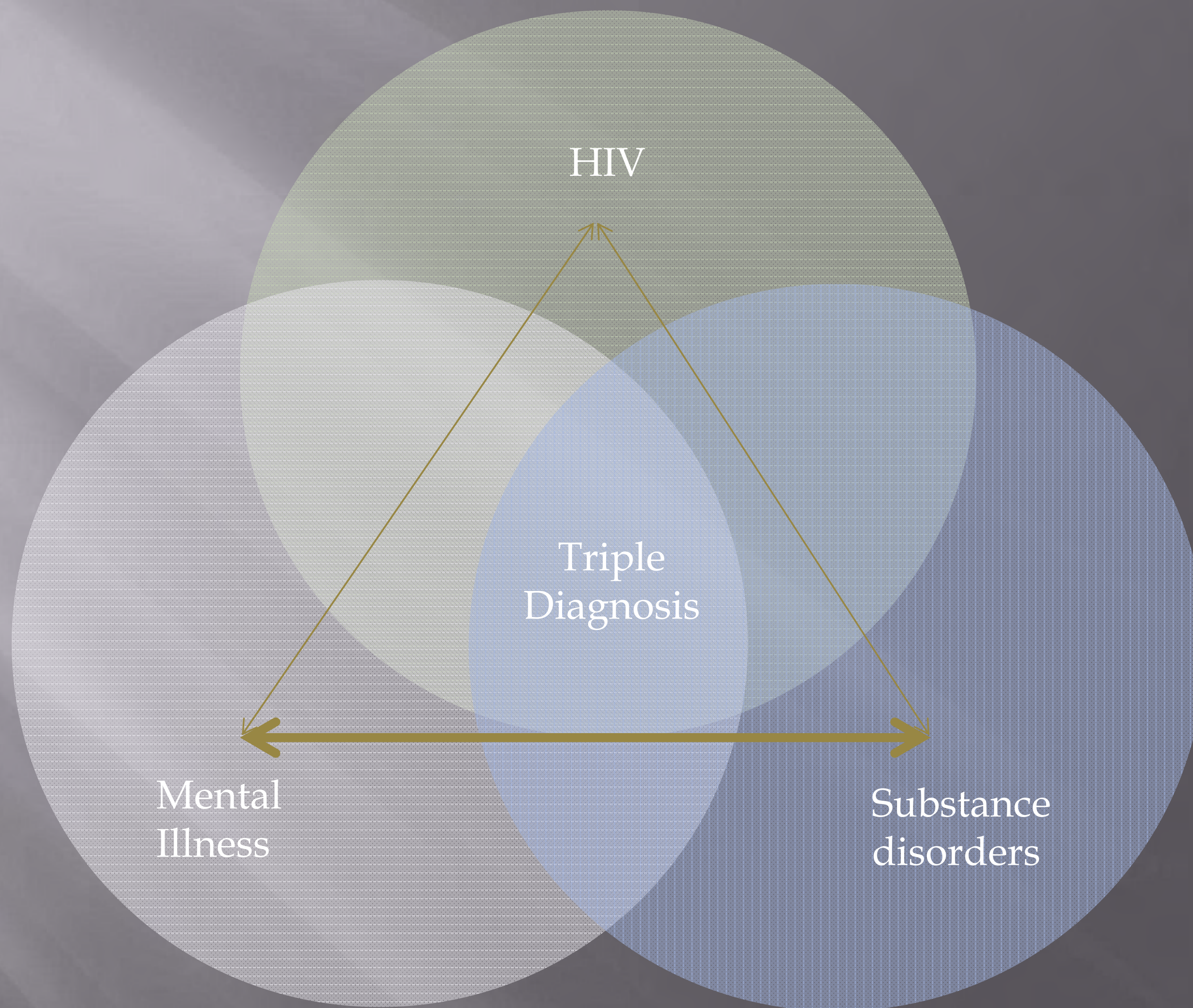

HIV
Triple
Diagnosis
Mental
Illness
Substance
disorders

Triple diagnosis

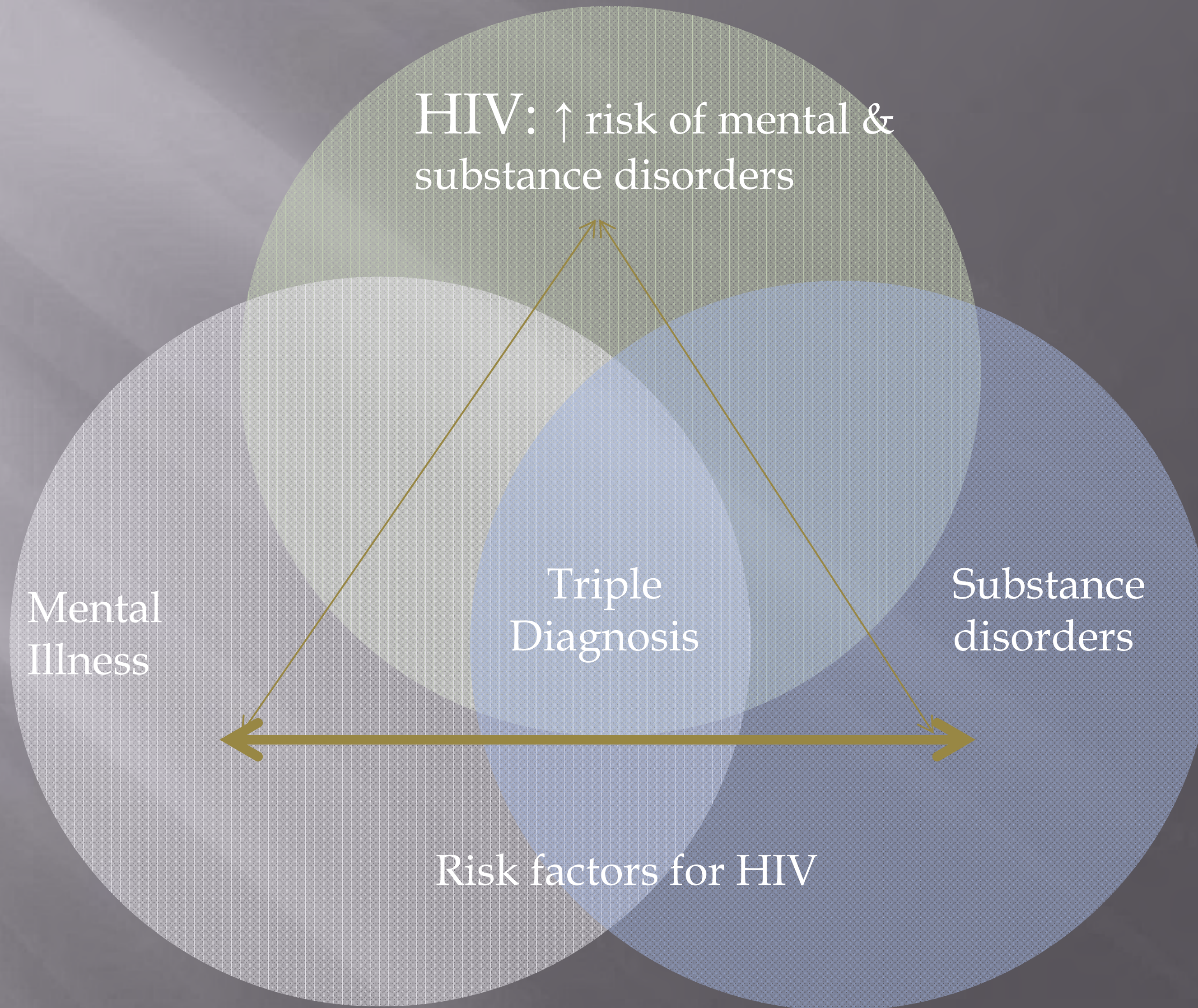
- Syndemic
- Screening
- Diagnosis
- Management

Syndemic:

"A set of linked health problems involving two or more afflictions, interacting ***synergistically***, and contributing to excess burden of disease in a population. Syndemics occur when health-related problems ***cluster by person, place, or time***."

Webster's Medical Dictionary

Comorbidity



Comorbidity

HIV + sample:

- 60% mental illness (general population 22%)
- 32% substance disorders (general population 9.5%)
- 23% substance disorder and mental illness (general population 3%)

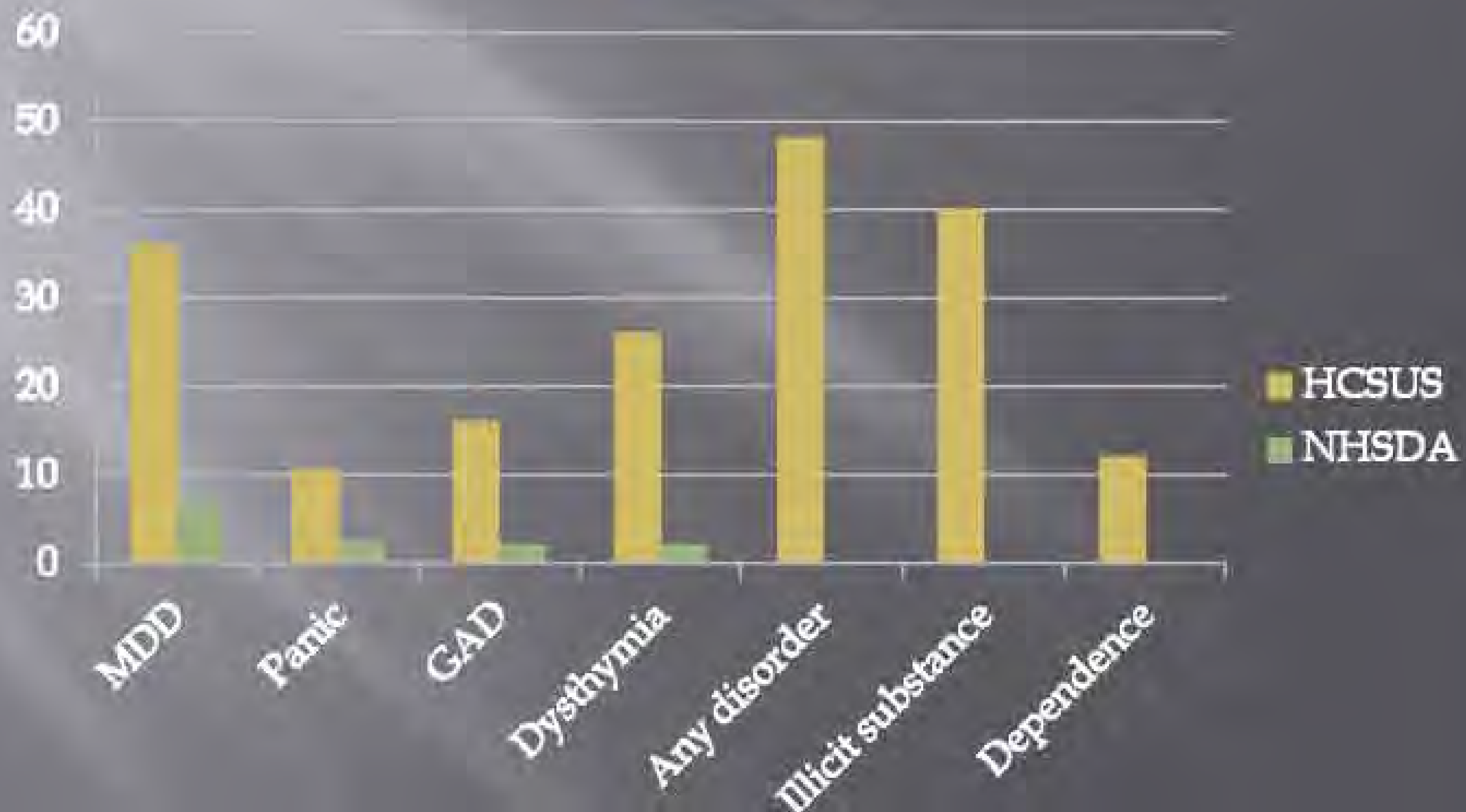
Soto et al, Southern Medical Journal, 2005

Comorbidity

HIV Cost and Services Utilisation Study:

- Half of HIV + patients screened positive for mental illness: major depression, dysthymia, generalized anxiety disorder (GAD) and panic attacks (no association with disease severity)
- 40% used illicit substance other than cannabis
- 12% substance dependence (during previous 12 months)

Bing et al, Archives of General Psychiatry, 2001


HIV Cost and Services Utilisation Study
60
50
40
30
20
10
0
MDD
Panic
GAD
Dysthymia
Any disorder
Illicit substance
Dependence
HCSUS
NHSDA

Comorbidity

HIV prevalence in dual diagnosis sample:

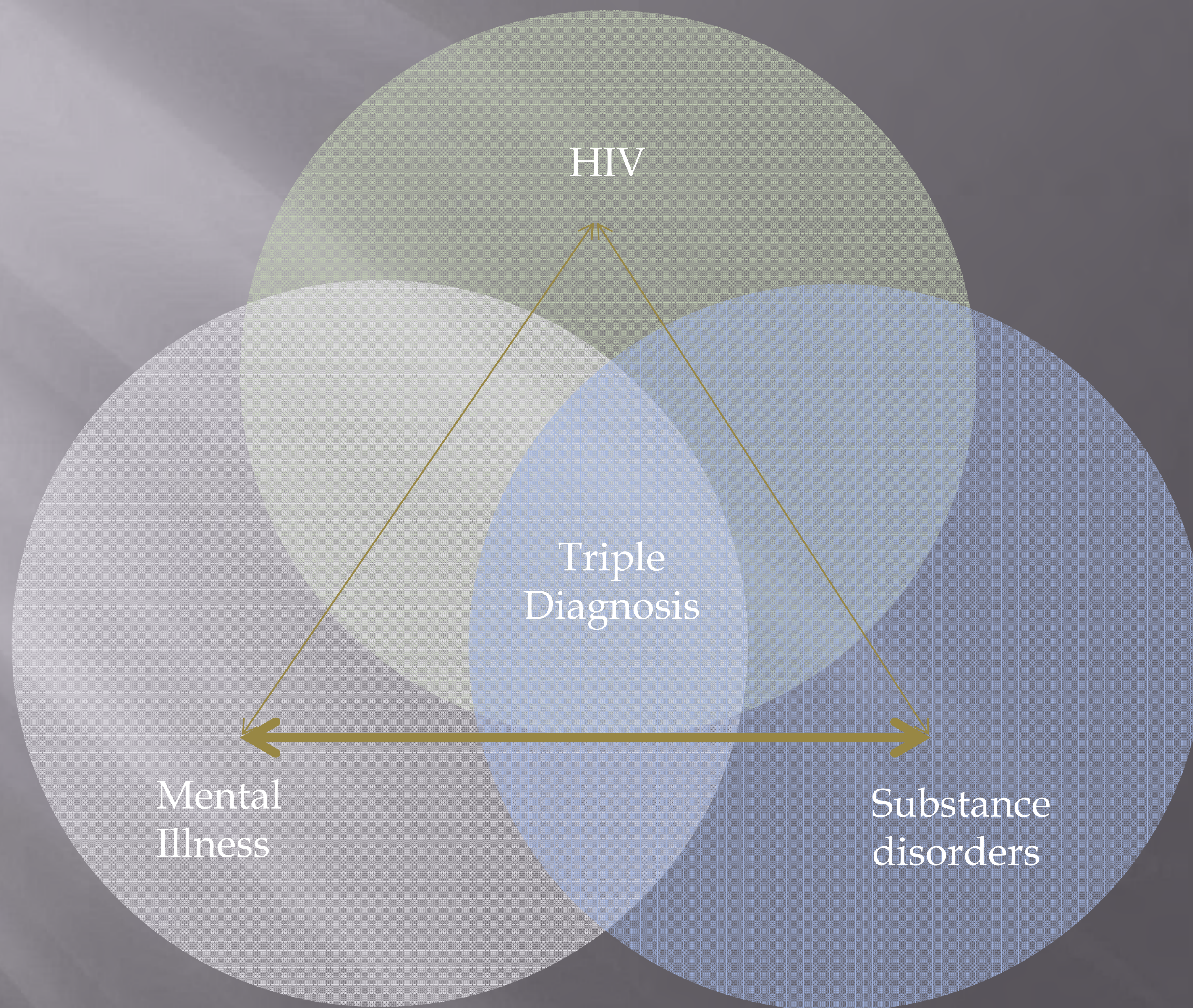
- 18,4%
- 33,8% IV users
- 15,4% non IV users
- 10,9% alcohol users
- 2,5% no substance abuse

Cournos & McKinnon, Clinical Psychology Review, 1997

Comorbidity

- HIV prevalence 4.7% in dually diagnosed patients
- HIV prevalence 2.4% in patients with single diagnosis of substance abuse

Dausey DJ, Desai RA, The Journal of Nervous and Mental Disease, 2003.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Synergism:
HIV

- increases risk of psychiatric and substance disorders
- can cause mental illness through direct and indirect effects of the virus
- can exacerbate substance abuse
- antivirals can precipitate/ worsen psychiatric symptoms

Synergism:
Mental illness

- influence adherence to HAART
- untreated mental disorders associated with poor adherence
- negative impact on HIV outcomes
- decreases motivation to stop substances

Freeman, Patel & Collins, British Journal of Psychiatry, 2005

Synergism:
Substance disorders

- alter progression of HIV and mental illness
  - negative impact on HIV outcomes
  - may exacerbate mental disorders
- influence adherence to HAART and psychiatric medication
- undermines viral suppression
- alcohol use may exacerbate the effect of the virus on the brain
- substance abuse in people with HIV may lead to unsafe sex

HIV/AIDS Treatment Adherence, Health Outcomes and Cost Study Group, AIDS Care, 2004

Synergism

- Correct diagnosis difficult:
  - Symptom overlap
  - Medical comorbidities
- ↓ Access to medical care due to:
  - Cognitive impairment
  - Social disorganization
  - Reduced motivation
- Interpersonal difficulties intensified
- Triple the stigma
- Higher levels of distress and physical impairment

AIDS mania, Lyketsos et al, *J Neuropsychiatry Clin Neurosc, 1997*

Screening

Early diagnosis crucial

1) HIV test:

- Substance disorder or mental illness
- Current substance use: baseline then every 4 months
- History of substance use: baseline and annually

2) Screening for **mental illness and substance** disorder in every HIV+ patient

Screening tools

Screening instruments complement face-to-face evaluation

- Substance Abuse and Mental Illness Symptoms Screener (SAMISS)
- International HIV Dementia Scale
- CAGE

Joska, Stein et al, South African Journal of Psychiatry, 2008

Substance Abuse and Mental Illness Symptoms Screener (SAMISS)

1. How often do you have a drink containing alcohol?

Never Monthly or less 2–4 times/mo 2–3 times/wk 4+ times/wk

0 1 2 3 4

2. How many drinks do you have on a typical day when you are drinking?

None 1 or 2 3 or 4 5 or 6 7–9 10 or more

0 1 2 3 4 5

3. How often do you have 4 or more drinks on 1 occasion?

Never Less than monthly Monthly Weekly Daily or almost daily

0 1 2 3 4

Total for Q1-3: ______________ (Note: score of 5+ indicates positive screen)

4. In the past year, how often did you use nonprescription drugs to get high or to change the way you feel?

Never Less than monthly Monthly Weekly Daily or almost daily

0 1 2 3 4

Total for Q4: ________________ (Note score of 3+ indicates positive screen)

5. In the past year, how often did you use drugs prescribed to you or to someone else to get high or change the way you feel?

Never Less than monthly Monthly Weekly Daily or almost daily

0 1 2 3 4

Total for Q5: ________________ (Note score of 3+ indicates positive screen)

6. In the past year, how often did you drink or use drugs more than you meant to?

Never Less than monthly Monthly Weekly Daily or almost daily

0 1 2 3 4

Total for Q6: _________________ (Note: score of 1+ indicates positive screen)

7. How often did you feel you wanted or needed to cut down on your drinking or drug use in the past year, and were not able to?

Never Less than monthly Monthly Weekly Daily or almost daily

0 1 2 3 4

Total for Q8: _________________ (Note: score of 1+ indicates positive screen)

Diagnosis and assessment

- Mental health assessment
- Acute change in mental state
- Exclusion of medical causes

Mental health assessment

- Avoid labelling and address behaviours without judgement
- Collateral crucial
- Substance Abuse History

  1. Age of onset of substance abuse
  2. Substance type
  3. Substance abuse description
  4. Amount, frequency, and route of administration
  5. Past or current substance abuse treatment
- Risk assessment

Acute change in mental state

- Medical condition
- Substance intoxication or withdrawal
- Toxicity

Exclusion of medical causes

- ANY symptoms experienced by the patient can have a medical condition as a differential diagnosis/cause
- Common in triply diagnosed patients:
  - Hepatitis
  - Deranged LFT's
  - Arrhythmias
- STIRR (screening, testing, immunisation, reducing risk, referring)

Assessing the STIRR model of best practices for blood-borne infections of clients with severe mental illness, Rosenberg et al, Psychiatric Services, 2010

Management

- Emergency treatment
- Treatment models
- Pharmacotherapy
- Psychotherapy
- Adherence

Emergency treatment

- Risk of violence to self/others
- Substance withdrawal (or imminent withdrawal)
- Acute change in mental status that is not readily attributable to intoxication

Treatment models

- Sequential treatment
- Parallel treatment
- Integrated treatment

Sequential treatment

Description	Patients who may benefit
Acute disorder is treated first. After stabilization, other disorder(s) is addressed.	Appropriate for patients who have one disorder that is mild and does not contribute significantly to or interfere with acute disorder.
Treatment of acute disorder should not exacerbate milder disorder	

Parallel treatment

Description	Patients who may benefit
Provides simultaneous treatment of both disorders but in different settings and by different providers. Requires aggressive case management, preferably by a single case manager who can assist patients across settings. May be the only option available in areas with limited resources.	Effective for patients who are motivated and able to navigate multiple systems
Necessitates ongoing and effective communication among providers to avoid potential conflicts among different treatment approaches.	

Integrated treatment

Description	Patients who may benefit
Substance use and mental health treatments occur in the same location.	May be the preferred treatment strategy for SMI patients with active comorbid substance use.
Providers are trained in both fields and have regularly scheduled meetings to discuss treatment progress and planning	May be effective for patients who require careful monitoring of HIV-related medications and psychotropic medications.
Optimal treatment includes HIV care at the same location.	
Truly integrated models of treatment for co-occurring disorders are not commonly available in many communities.	

Integrated care

- Need to treat the whole person, not simply parts of the person or their individual illnesses
- Holistic approach
- Multidisciplinary clinical team: case managers, social workers, medical providers, counselors or therapists, and psychiatrists
- Coordinated treatment plan
- Same location, easily accessible

APA office on AIDS, 2011

Pharmacotherapy: Golden rules

- Be alert to drug-drug interactions
- "The Shopping List"

List all prescriptions and illicit substances at 1st visit, update and refer to list when prescribing

- Knowledge of pharmacodynamics and pharmacokinetics essential
- Do LFT's and Hepatitis studies before prescribing
  - Hep C & B: reduced ability to metabolise other drugs
  - Choice of ARV's

Cannabis

- Induces CYP1A2
- Can reduce serum levels of Olanzapine and Clozapine
- Risk of additive sedation
- Dose related tachycardia

Alcohol

- Liver damage possible – monitor LFT's
- Oversedation and respiratory depression possible with benzodiazepines
- Increased risk of hypotension with Olanzapine

Cocaine/Amphetamines/Ecstasy

- Risk of arrhythmias or cerebral/cardiac ischaemia
- Carbamazapine induces CYP3A4: ↑ norcocaine (more cardiotoxic and hepatotoxic than cocaine)
- Avoid TCA's and MAOI's
- Concomitant use of SSRI's can precipitate serotonin syndrome
- SSRI's generally ineffective at attenuating withdrawal
- Hyperthermia/ dehydration with Ecstasy

Heroin/ Methadone

- Metabolised by Cytochrome P450 system
- Induction or inhibition of CYP450 can lead to increases/ decreases in levels
- This can lead to opiate withdrawal or overdose (which can be fatal)

ARV's

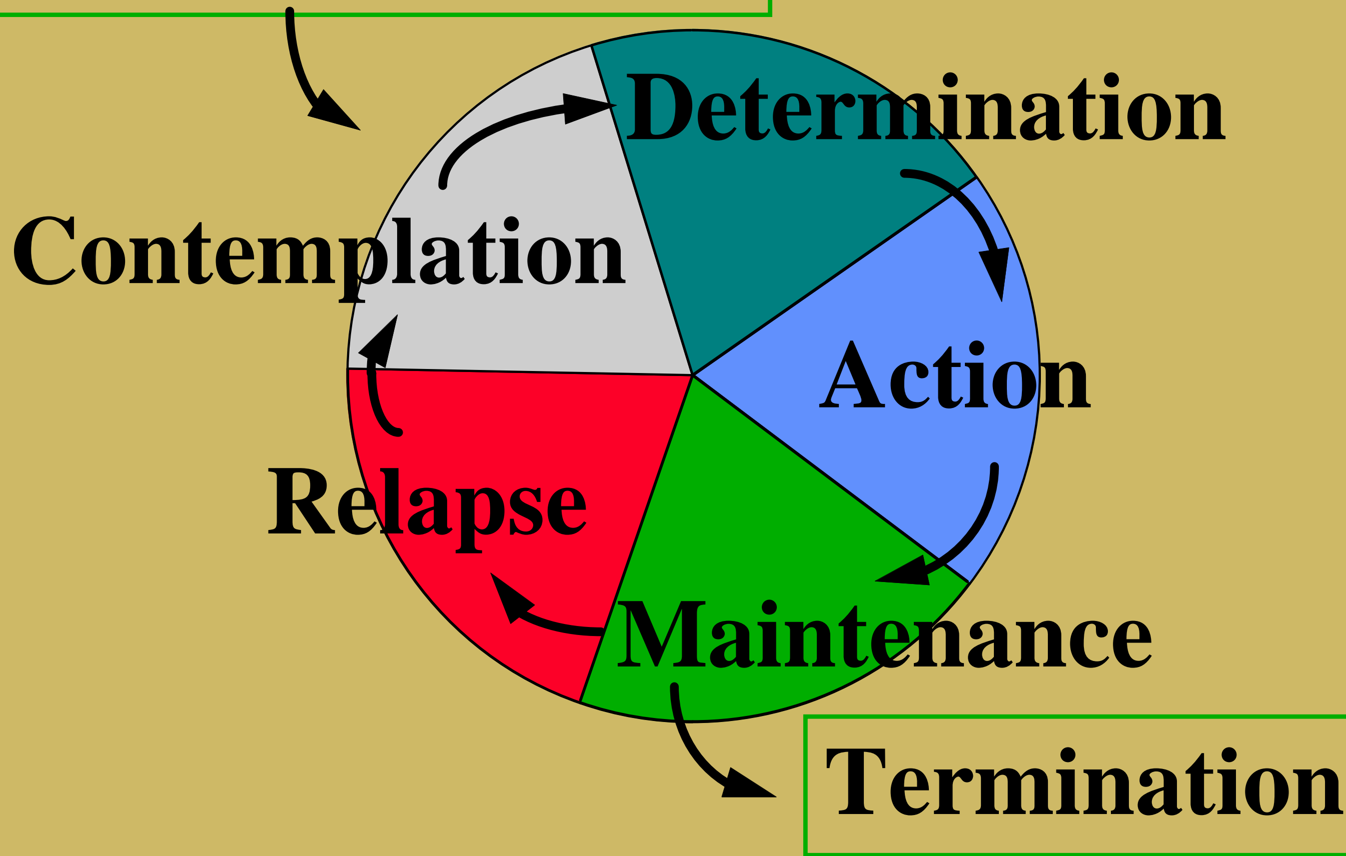
ARV	Methodone/Heroin
Stavudine (d4T)	↓ Stavudine levels
Didanosine (ddI)	↓ Didanosine (tablet)
Efavirenz	↓
Nevirapine	↑
Zidovudine	↑ Zidovudine levels
(Ritonavir)	↓
Ritonavir + Lopinavir	↓
Abacavir	↓

Psychological treatment

Types:

- Individual therapy:
  - motivational/supportive counselling
  - CBT
  - Psycho-education
- Family therapy
- Self-help groups

Motivational interviewing



Adherence

Barriers to treatment:

- Unstable housing
- Lack of food
- Lack of transportation
- Complexities of the system
- Poor support
- Side-effects of treatment
- Poor understanding (cognitive impairment)

Andersen et al, 2005

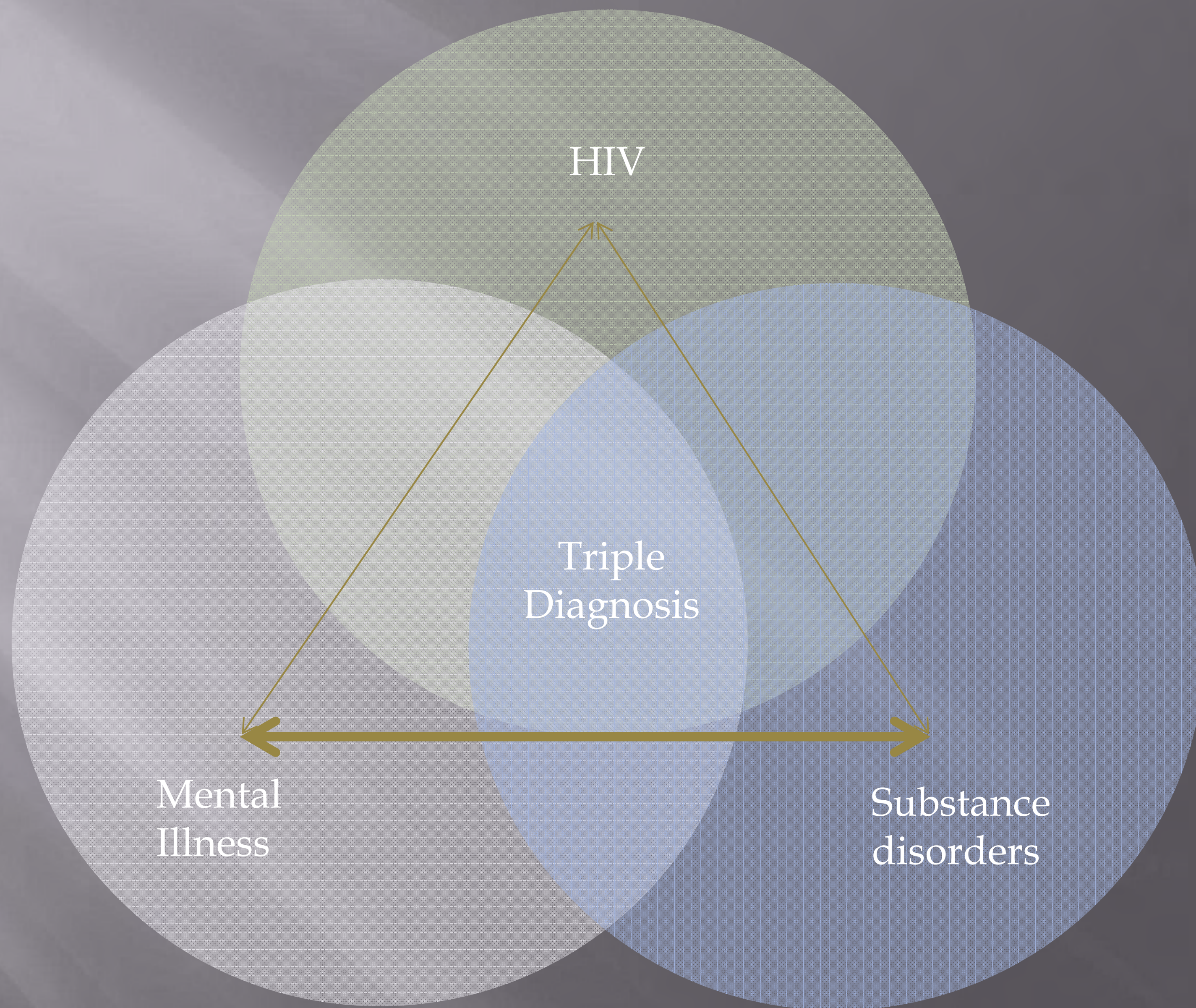
Ways to improve adherence

- Be aware of drug drug interactions and side effects
- Assess patient’s ability to understand
- Encourage family involvement
- Specific strategies:

  DOTS

  Pharmacist assisted interventions

  Integrated behavioural interventions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THANK YOU