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**Service Category Definition - Ryan White Part A Grant
2012-2013**

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| HRSA Service Category Title: RWGA Only | Substance Abuse Services Outpatient |
| Local Service Category Title: RWGA Only | Substance Abuse Treatment/Counseling |
| Budget Type: RWGA Only | Unit Cost Minimum group session length is 2 hours |
| Budget Requirements or Restrictions: RWGA Only | Not applicable. |
| HRSA Service Category Definition: RWGA Only | <i>Substance abuse services outpatient</i> is the provision of medical or other treatment and/or counseling to address substance abuse problems (i.e., alcohol and/or legal and illegal drugs) in an outpatient setting, rendered by a physician or under the supervision of a physician, or by other qualified personnel. |
| Local Service Category Definition: | Treatment and/or counseling HIV-infected individuals with substance abuse disorders delivered in accordance with State licensing guidelines.. |
| Target Population (age, gender, geographic, race, ethnicity, etc.): | HIV-infected individuals with substance abuse disorders, residing in the Houston Eligible Metropolitan Area (EMA/HSDA). |
| Services to be Provided: | Services for all eligible HIV/AIDS patients with substance abuse disorders. Services provided must be integrated with HIV-related issues that trigger relapse. All services must be provided in accordance with the Texas Department of Health Services/Substance Abuse Services (TDSHS/SAS) Chemical Dependency Treatment Facility Licensure Standards. Service provision must comply with the applicable treatment standards. |
| Service Unit Definition(s): (RWGA only) | Individual Counseling: One unit of service = one individual counseling session of at least 45 minutes in length with one (1) eligible client. A single session lasting longer than 45 minutes qualifies as only a single unit – no fractional units are allowed except as noted below for insurance co-pays. Medicare and private insurance co-payments are eligible for reimbursement at ½ unit per co-payment. Two (2) units are allowed for initial assessment/orientation session. Group Counseling: One unit of service = one session of group treatment for one eligible client. A single session must last a minimum of 2 hours. A maximum of one unit may be billed per person per group session. Support Groups are defined as professionally led groups that are comprised of HIV-positive individuals, family members, or significant others for the purpose of providing Substance Abuse therapy. |
| Financial Eligibility: | Refer to the RWPC's approved <i>Financial Eligibility for Houston EMA/HSDA Services</i> . |
| Client Eligibility: | HIV-infected individuals with substance abuse co-morbidities/disorders. |

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| <p>Agency Requirements: RWGA Only</p> | <p>Agency must be appropriately licensed by the State. All services must be provided in accordance with applicable Texas Department of State Health Services/Substance Abuse Services (TDSHS/SAS) Chemical Dependency Treatment Facility Licensure Standards. Client must not be eligible for services from other programs or providers (i.e. MHMRA of Harris County) or any other reimbursement source (i.e. Medicaid, Medicare, Private Insurance) unless the client is in crisis and cannot be provided immediate services from the other programs/providers. In this case, clients may be provided services, as long as the client applies for the other programs/providers, until the other programs/providers can take over services. All services must be provided in accordance with the TDSHS/SAS Chemical Dependency Treatment Facility Licensure Standards. Specifically, regarding service provision, services must comply with the most current version of the applicable Rules for Licensed Chemical Dependency Treatment. Services provided must be integrated with HIV-related issues that trigger relapse.</p> <p>Provider must provide a written plan no later than 3/30/13 documenting coordination with local TDSHS/SAS HIV Early Intervention funded programs if such programs are currently funded in the Houston EMA.</p> |
| <p>Staff Requirements:</p> | <p>Must meet all applicable State licensing requirements and Houston EMA/HSDA Part A/B Standards of Care.</p> |
| <p>Special Requirements:</p> | <p>Not Applicable.</p> |

Service Category Definition - Ryan White Part A Grant
2012-2013

FY 2013 How to Best Meet the Need Process

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| Step in Process: Council | | Date: |
| Recommendations: | Approved: Y_____ No: _____ Approved With Changes:_____ | If approved with changes list changes below: |
| 1. | | |
| 2. | | |
| 3. | | |
| Step in Process: Steering Committee | | Date: |
| Recommendations: | Approved: Y_____ No: _____ Approved With Changes:_____ | If approved with changes list changes below: |
| 1. | | |
| 2. | | |
| 3. | | |
| Step in Process: Quality Assurance Committee | | Date: |
| Recommendations: | Approved: Y_____ No: _____ Approved With Changes:_____ | If approved with changes list changes below: |
| 1. | | |
| 2. | | |
| 3. | | |
| Step in Process: HTBMTN Workgroup #2 | | Date: 04/23/12 |
| Recommendations: | Financial Eligibility: | |
| 1. | | |
| 2. | | |
| 3. | | |

**2012-2013 HOUSTON ELIGIBLE METROPOLITAN AREA: RYAN WHITE CARE
ACT PART A/B
STANDARDS OF CARE FOR HIV SERVICES
RYAN WHITE GRANT ADMINISTRATION SECTION
HARRIS COUNTY PUBLIC HEALTH AND ENVIRONMENTAL SERVICES (HCPHES)**

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INTRODUCTION

According to the Joint Commission on Accreditation of Healthcare Organization (JCAHO) 2008)¹, a standard is a “statement that defines performance expectations, structures, or processes that must be in place for an organization to provide safe, high-quality care, treatment, and services”. Standards are developed by subject experts and are usually the minimal acceptable level of quality in service delivery. The Houston EMA Ryan White Grant Administration (RWGA) Standards of Care (SOCs) are based on multiple sources including RWGA on-site program monitoring results, consumer input, the US Public Health Services guidelines, Centers for Medicare and Medicaid Conditions of Participation (COP) for health care facilities, JCAHO accreditation standards, the Texas Administrative Code, Center for Substance Abuse and Treatment (CSAT) guidelines and other federal, state and local regulations.

Purpose

The purpose of the Ryan White Part A/B SOCs is to determine the minimal acceptable levels of quality in service delivery and to provide a measurement of the effectiveness of services.

Scope

The Houston EMA SOCs apply to Part A, Part B and State Services, funded HRSA defined core and support services including the following services in FY 2012-2013:

- Primary Medical Care
- Vision Care
- Medical Case Management
- Clinical Case Management
- Local AIDS Pharmaceutical Assistance Program (LPAP)
- Oral Health
- Health insurance
- Hospice Care
- Mental Health Services
- Substance Abuse services
- Home & Community Based Services (Facility-Based)
- Early Intervention Services
- Legal Services
- Medical Nutrition Therapy
- Non-Medical Case Management (Service Linkage)
- Food Bank
- Transportation
- Linguistic Services

Standards Development

The first group of standards was developed in 1999 following HRSA requirements for sub grantees to implement monitoring systems to ensure subcontractors complied with contract requirements. Subsequently, the RWGA facilitates annual work group meetings to review the standards and to make applicable changes. Workgroup participants include physicians, nurses, case managers and executive staff from subcontractor agencies as well as consumers.

Organization of the SOCs

The standards cover all aspect of service delivery for all funded service categories. Some standards are consistent across all service categories and therefore are classified under general standards.

These include:

- Staff requirements, training and supervision
- Client rights and confidentiality
- Agency and staff licensure
- Emergency Management

The RWGA funds three case management models. Unique requirements for all three case management service categories have been classified under Service Specific SOCs “Case Management (All Service Categories)”. Specific service requirements have been discussed under each service category. All new and/or revised standards are effective at the beginning of the fiscal year.

¹ The Joint Commission on Accreditation of Healthcare Organization (2008). Comprehensive accreditation manual for ambulatory care; Glossary

GENERAL STANDARDS

| | Standard | Measure |
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| 1.0 | Staff Requirements | |
| 1.1 | <p><u>Staff Screening (Pre-Employment)</u> Staff providing services to clients shall be screened for appropriateness by provider agency as follows:</p> <ul style="list-style-type: none"> • Personal/Professional references • Personal interview • Written application <p>Criminal background checks, if required by Agency Policy, must be conducted prior to employment and thereafter for all staff and/or volunteers per Agency policy.</p> | <ul style="list-style-type: none"> • Review of Agency's Policies and Procedures Manual indicates compliance • Review of personnel and/or volunteer files indicates compliance |
| 1.2 | <p><u>Initial Training: Staff/Volunteers</u> Initial training includes eight (8) hours HIV/AIDS basics, safety issues (fire & emergency preparedness, hazard communication, infection control, universal precautions), confidentiality issues, role of staff/volunteers, agency-specific information (e.g. Drug Free Workplace policy). Initial training must be completed within 60 days of hire.</p> | <ul style="list-style-type: none"> • Documentation of all training in personnel file. • Specific training requirements are specified in Agency Policy and Procedure • Materials for staff training and continuing education are on file • Staff interviews indicate compliance |
| 1.3 | <p><u>Staff Performance Evaluation</u> Agency will perform annual staff performance evaluation.</p> | <ul style="list-style-type: none"> • Completed annual performance evaluation kept in employee's file • Signed and dated by employee and supervisor (includes electronic signature) |
| 1.4 | <p><u>Cultural and HIV Mental Health Co-morbidity Competence Training/Staff and Volunteers</u> All staff must receive four (4) hours of cultural competency training and an additional one (1) hour of HIV/Mental Health co-morbidity sensitivity training annually. All new employees must complete these within ninety (90) days of hire.</p> | <ul style="list-style-type: none"> • Documentation of training is maintained by the agency in the personnel file |
| 1.5 | <p><u>Staff education on eligibility determination and fee schedule</u> Agency must provide training on agency's policies and procedures for eligibility determination and sliding fee</p> | <p>Documentation of training in employee's record</p> |

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| | <p>schedule for, but not limited to, case managers, and eligibility & intake staff annually.</p> <p>All new employees must complete within ninety (90) days of hire.</p> | |
| 2.0 | Services utilize effective management practices such as cost effectiveness, human resources and quality improvement. | |
| 2.1 | <p><u>Service Evaluation</u></p> <p>Agency has a process in place for the evaluation of client services.</p> | <ul style="list-style-type: none"> • Review of Agency’s Policies and Procedures Manual indicates compliance • Staff interviews indicate compliance. |
| 2.2 | <p><u>Subcontractor Monitoring</u></p> <p>Agency that utilizes a subcontractor in delivery of service, must have established policies and procedures on subcontractor monitoring that include:</p> <ul style="list-style-type: none"> • Fiscal monitoring • Program • Quality of care • Compliance with guidelines and standards <p>Reviewed Annually</p> | <ul style="list-style-type: none"> • Documentation of subcontractor monitoring • Review of Agency’s Policies and Procedures Manual indicates compliance |
| 2.3 | <p><u>Staff Guidelines</u></p> <p>Agency develops written guidelines for staff, which include, at a minimum, agency-specific policies and procedures (staff selection, resignation and termination process, job descriptions); client confidentiality; health and safety requirements; complaint and grievance procedures; emergency procedures; and statement of client rights.</p> <p>Reviewed Annually</p> | <ul style="list-style-type: none"> • Personnel file contains a signed statement acknowledging that staff guidelines were reviewed and that the employee understands agency policies and procedures |
| 2.4 | <p><u>Work Conditions</u></p> <p>Staff/volunteers have the necessary tools, supplies, equipment and space to accomplish their work.</p> | <ul style="list-style-type: none"> • Inspection of tools and/or equipment indicates that these are in good working order and in sufficient supply • Staff interviews indicate compliance |
| 2.5 | <p><u>Staff Supervision</u></p> <p>Staff services are supervised by a paid coordinator or manager.</p> | <ul style="list-style-type: none"> • Review of personnel files indicates compliance • Review of Agency’s Policies and Procedures Manual indicates |

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| | | compliance |
| 2.6 | <p><u>Professional Behavior</u> Staff must comply with written standards of professional behavior.</p> | <ul style="list-style-type: none"> • Staff guidelines include standards of professional behavior • Review of Agency’s Policies and Procedures Manual indicates compliance • Review of personnel files indicates compliance • Review of agency’s complaint and grievance files |
| 2.7 | <p><u>Communication</u> There are procedures in place regarding regular communication with staff about the program and general agency issues.</p> | <ul style="list-style-type: none"> • Review of Agency’s Policies and Procedures Manual indicates compliance • Documentation of regular staff meetings • Staff interviews indicate compliance |
| 2.8 | <p><u>Accountability</u> There is a system in place to document staff work time.</p> | <ul style="list-style-type: none"> • Staff time sheets or other documentation indicate compliance |
| 2.9 | <p><u>Staff Availability</u> Staff are present to answer incoming calls during agency’s normal operating hours.</p> | <ul style="list-style-type: none"> • Published documentation of agency operating hours • Staff time sheets or other documentation indicate compliance |
| 3.0 | Clients Rights and Responsibilities | |
| 3.1 | <p><u>Clients Rights and Responsibilities</u> Agency has a Client Rights and Responsibilities Statement that is reviewed with each client in a language and format the client can understand. Agency will provide client with written copy of client rights and responsibilities, including:</p> <ul style="list-style-type: none"> • Informed consent • Confidentiality • Grievance procedures • Duty to warn or report certain behaviors • Scope of service • Criteria for end of services | <ul style="list-style-type: none"> • Documentation in client’s record |
| 3.2 | <p><u>Confidentiality</u> Agency has Policy and Procedure regarding client confidentiality in accordance with RWGA /TRG site visit</p> | <ul style="list-style-type: none"> • Review of Agency’s Policies and Procedures Manual indicates compliance • Clients interview indicates compliance |

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| | <p>guidelines, local, state and federal laws. Providers must implement mechanisms to ensure protection of clients' confidentiality in all processes throughout the agency.</p> <p>There is a written policy statement regarding client confidentiality form signed by each employee and included in the personnel file.</p> | <ul style="list-style-type: none"> • Agency's structural layout and information management indicates compliance • Signed confidentiality statement in each employee's personnel file |
| <p>3.3</p> | <p><u>Consents</u></p> <p>All consent forms comply with state and federal laws, are signed by an individual legally able to give consent and must include the Consent for Services form and a consent for release/exchange of information for every individual/agency to whom client identifying information is disclosed, regardless of whether or not HIV status is revealed.</p> | <ul style="list-style-type: none"> • Agency Policy and Procedure and signed and dated consent forms in client record |
| <p>3.4</p> | <p><u>Up to date Release of Information</u></p> <p>Agency obtains an informed written consent of the client or legally responsible person prior to the disclosure or exchange of certain information about client's case to another party (including family members) in accordance with the RWGA Site Visit Guidelines, local, state and federal laws. The release/exchange consent form must contain:</p> <ul style="list-style-type: none"> • Name of the person or entity permitted to make the disclosure • Name of the client • The purpose of the disclosure • The types of information to be disclosed • Entities to disclose to • Date on which the consent is signed • The expiration date of client authorization (or expiration event) no longer than two years • Signature of the client/or parent, guardian or person authorized to sign in lieu of the client. • Description of the <i>Release of Information</i>, its components, and ways the client can nullify it <p>Released/exchange of information forms must be completed</p> | <ul style="list-style-type: none"> • Current Release of Information form with all the required elements signed by client or authorized person in client's record |

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| | entirely in the presence of the client. Any unused lines must have a line crossed through the space. | |
| 3.5 | <p><u>Grievance Procedure</u> Agency has Policy and Procedure regarding client grievances that is reviewed with each client in a language and format the client can understand and a written copy of which is provided to each client.</p> <p>Grievance procedure includes but is not limited to:</p> <ul style="list-style-type: none"> • to whom complaints can be made • steps necessary to complain • form of grievance, if any • time lines and steps taken by the agency to resolve the grievance • documentation by the agency of the process, including a standardized grievance/complaint form available in a language and format understandable to the client • all complaints or grievances initiated by clients are documented on the Agency's standardized form • resolution of each grievance/complaint is documented on the Standardized form and shared with client • confidentiality of grievance • addresses and phone numbers of licensing authorities and funding sources | <ul style="list-style-type: none"> • Signed receipt of agency Grievance Procedure, filed in client chart • Review of Agency's Policies and Procedures Manual indicates compliance • Review of Agency's Grievance file indicates compliance, • Source Citation: HAB Monitoring Standards; Part I: Universal Standards; Section A: Access to Care #2 |
| 3.6 | <p><u>Conditions Under Which Discharge/Closure May Occur</u> A client may be discharged from Ryan White funded services for the following reasons.</p> <ul style="list-style-type: none"> • Death of the client • At the client's or legal guardian request • Changes in client's need which indicates services from another agency • Fraudulent claims or documentation about HIV diagnosis by the client • Client actions put the agency, case manager or other clients at risk. Documented supervisory review is | <ul style="list-style-type: none"> • Documentation in client record and in the Centralized Patient Care Data Management System • A copy of written notice and a certified mail receipt for involuntary termination |

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| | <p>required when a client is terminated or suspended from services due to behavioral issues.</p> <ul style="list-style-type: none"> Client moves out of service area, enters jail or cannot be contacted for sixty (60) days. Agency must document three (3) attempts to contact clients by more than one method (e.g. phone, mail, email, text message, in person via home visit). <p>Client must be provided a written notice prior to involuntary termination of services (e.g. due to dangerous behavior, fraudulent claims or documentation, etc).</p> | |
| <p>3.7</p> | <p><u>Client Closure</u> A summary progress note is completed in accordance with Site Visit Guidelines within three (3) working days of closure, including:</p> <ul style="list-style-type: none"> Date and reason for discharge/closure Summary of all services received by the client and the client’s response to services <p>Referrals made and/or instructions given to the individual at discharge (when applicable)</p> | <ul style="list-style-type: none"> Documentation in client record and in the Centralized Patient Care Data Management System |
| <p>3.8</p> | <p><u>Client Feedback</u> In addition to the RWGA standardized client satisfaction survey conducted on an ongoing basis (no less than annually), Agency must have structured and ongoing efforts to obtain input from clients (or client caregivers, in cases where clients are unable to give feedback) in the design and delivery of services. Such efforts may include client satisfaction surveys, focus groups and public meetings conducted at least annually. Agency may also maintain a visible suggestion box for clients’ inputs. Analysis and use of results must be documented. Agency must maintain a file of materials documenting Consumer Advisory Board (CAB) membership and meeting materials (applicable only if agency has a CAB).</p> <ul style="list-style-type: none"> Agencies that serve an average of 100 or more | <ul style="list-style-type: none"> Documentation of clients’ evaluation of services is maintained Documentation of CAB and public meeting minutes Documentation of existence and appropriateness of a suggestion box or other client input mechanism Documentation of content, use, and confidentiality of a client satisfaction survey or focus groups conducted annually Source Citation: HAB Monitoring Standards; Part I: Universal Standards; Section A: Access to Care #1 |

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| | <p>unduplicated clients monthly under combined RW/A, MAI, RW/B and SS funding must implement a CAB. The CAB must meet regularly (at least 4 times per year) at a time and location conducive to consumer participation to gather, support and encourage client feedback, address issues which impact client satisfaction with services and provide Agency with recommendations to improve service delivery, including accessibility and retention in care.</p> | |
| 3.9 | <p><u>Patient Safety (Core Services Only)</u> Agency shall establish mechanisms to implement National Patient Safety Goals (NPSG) modeled after the current Joint Commission accreditation <i>for Ambulatory Care</i> (www.jointcommission.org) to ensure patients' safety. The NPSG to be addressed include the following as applicable:</p> <ul style="list-style-type: none"> • “Improve the accuracy of patient identification • Improve the safety of using medications • Reduce the risk of healthcare-associated infections • Accurately and completely reconcile medications across the continuum of care • Universal Protocol for preventing Wrong Site, Wrong Procedure and Wrong Person Surgery” (www.jointcommission.org) | <ul style="list-style-type: none"> • Review of Agency’s Policies and Procedures Manual indicates compliance |
| 3.10 | <p><u>Client Files</u> Provider shall maintain all client files.</p> | <ul style="list-style-type: none"> • Review of agency’s policy and procedure for records administration indicates compliance |
| 4.0 | <u>Accessibility</u> | |
| 4.1 | <p><u>Cultural Competence</u> Agency demonstrates a commitment to provision of services that are culturally sensitive and language competent for Limited English Proficient (LEP) individuals.</p> | <ul style="list-style-type: none"> • Agency has procedures for obtaining translation services • Client satisfaction survey indicates compliance • Policies and procedures demonstrate commitment to the community and culture of the clients • Availability of interpretive services, bilingual staff, and staff trained in cultural competence • Agency has vital documents including, but not limited to |

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| | | applications, consents, complaint forms, and notices of rights translated in client record |
| 4.2 | <u>Client Education</u> Agency demonstrates capacity for client education and provision of information on community resources | <ul style="list-style-type: none"> • Availability of the blue book and other educational materials • Documentation of educational needs assessment and client education in clients' records |
| 4.3 | <u>Special Service Needs</u> Agency demonstrates a commitment to assisting individuals with special needs | <ul style="list-style-type: none"> • Agency compliance with the Americans with Disabilities Act (ADA). • Review of Policies and Procedures indicates compliance • Environmental Review shows a facility that is handicapped accessible |
| 4.4 | <u>Provision of Services for low-Income Individuals</u> Agency must ensure that facility is handicap accessible and is also accessible by public transportation (if in area served by METRO). Agency must have policies and procedures in place that ensures access to transportation services if facility is not accessible by public transportation. Agency should not have policies that dictate a dress code or conduct that may act as barrier to care for low income individuals. | <ul style="list-style-type: none"> • Facility is accessible by public transportation • Review of Agency's Policies and Procedures Manual indicates compliance • Source Citation: HAB Monitoring Standards; Part I: Universal Standards; Section A: Access to Care #4 |
| 4.5 | <u>Proof of HIV Diagnosis</u> Documentation of the client's HIV status is obtained at or prior to the initiation of services or registration services. An anonymous test result may be used to document HIV status temporarily (up to sixty [60] days). It must contain enough information to ensure the identity of the subject with a reasonable amount of certainty. | <ul style="list-style-type: none"> • Documentation in client record as per RWGA site visit guidelines or TRG Policy SG-03 • Source Citation: HAB Monitoring Standards; Part I: Universal Standards; Section A: Access to Care #3 |
| 4.6 | <u>Provision of Services Regardless of Current or Past Health Condition</u> Agency must have Policies and Procedures in place to ensure that HIV+ clients are not denied services due to current or pre-existing health condition or non-HIV related condition. A file must be maintained on all clients who are refused services and the reason for refusal. | <ul style="list-style-type: none"> • Review of Policies and Procedures indicates compliance • A file containing information on clients who have been refused services and the reasons for refusal |
| 4.7 | <u>Client Eligibility</u> | <ul style="list-style-type: none"> • Documentation of HIV+ status, residence, identification and |

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| | <p>In order to be eligible for services, individuals must meet the following:</p> <ul style="list-style-type: none"> • HIV+ • Residence in the Houston EMA/ HSDA (With prior approval, clients can be served if they reside outside of the Houston EMA/HSDA.) • Income no greater than 300% of the Federal Poverty level (unless otherwise indicated) • Proof of identification • Ineligibility for third party reimbursement | <p>income in the client record</p> <ul style="list-style-type: none"> • Documentation of ineligibility for third party reimbursement • Documentation of screening for Third Party Payers in accordance with TRG Policy SG-06 Documentation of Third Party Payer Eligibility or RWGA site visit guidelines • Source Citation: HAB Monitoring Standards; Part I: Universal Standards; Section B:Eligibility Determination/Screening #1 |
| 4.8 | <p><u>Re-evaluation of Client Eligibility</u> Agency conducts six (6) month re-evaluations of eligibility for all clients. At a minimum, agency confirms renewed eligibility with the CPCDMS and re-screens, as appropriate, for third-party payers. Third party payers include State Children's Health Insurance Programs (SCHIP), Medicare (including Part D prescription drug benefit) and private insurance. Agency must ensure that Ryan White is the Payer of last resort and must have policies and procedures addressing strategies to enroll all eligible uninsured clients into Medicare, Medicaid, private health insurance and other programs. Agency policy must also address coordination of benefits, billing and collection. Clients eligible for Department of Veterans Affairs (VA) benefits are duly eligible for Ryan White services and therefore exempted from the payer of last resort requirement</p> <ul style="list-style-type: none"> • Agency must verify 3rd party payment coverage for eligible services at every visit or monthly (whichever is less frequent) | <ul style="list-style-type: none"> • Client file contains documentation of re-evaluation of client residence, income and rescreening for third party payers at least every six (6) months • Review of Policies and Procedures indicates compliance • Information in client's files that includes proof of screening for insurance coverage • Source Citation: HAB Monitoring Standards; Part I: Universal Standards; Section B:Eligibility Determination/Screening #1 and #2 |
| 4.9 | <p><u>Charges for Services</u> Agency must institute Policies and Procedures for cost sharing including enrollment fees, premiums, deductibles, co-payments, co-insurance, sliding fee discount, etc. and an annual cap on these charges. Agency should not charge any of the above fees regardless of terminology to any Ryan White eligible patient whose gross income level (GIL) is ≤</p> | <ul style="list-style-type: none"> • Review of Policies and Procedures indicates compliance • Review of system for tracking patient charges and payments indicate compliance • Review of charges and payments in client records indicate compliance with annual cap • Sliding fee application forms on client record is consistent with Federal guidelines |

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| | <p>100% of the Federal Poverty Level (FPL) as documented in the CPCDMS for any services provided. Clients whose gross income is between 101-300% may be charged annual aggregate fees in accordance with the legislative mandate outlined below:</p> <ul style="list-style-type: none"> • 101%-200% of FPL---5% or less of GIL • 201%-300% of FPL---7% or less of GIL • >300% of FPL -----10% or less of GIL <p>Additionally, agency must implement the following:</p> <ul style="list-style-type: none"> • Six (6) month evaluation of clients to establish individual fees and cap (i.e. the six (6) month CPCDMS registration or registration update.) • Tracking of charges • A process for alerting the billing system when the cap is reached so client will not be charged for the rest of the calendar year. • <u>Documentation of fees</u> | |
| <p>4.10</p> | <p><u>Information on Program and Eligibility/Sliding Fee Schedule</u></p> <p>Agency must provide broad-based dissemination of information regarding the availability of services. All clients accessing services must be provided with a clear description of their sliding fee charges in a simple understandable format at intake and annually at registration update. Agency should maintain a file documenting promotion activities including copies of HIV program materials and information on eligibility requirements. Agency must proactively inform/educate clients when changes occur in the program design or process, client eligibility rules, fee schedule, facility layout or access to program or agency.</p> | <ul style="list-style-type: none"> • Agency has a written substantiated annual plan to targeted populations • Zip code data show provider is reaching clients throughout service area (as applicable to specific service category). • Agency file containing informational materials about agency services and eligibility requirements including the following: Brochures Newsletters Posters Community bulletins any other types of promotional materials • Signed receipt for client education/ information regarding eligibility and sliding fees on client record • Source Citation: HAB Monitoring Standards; Part I: Universal Standards; Section A: Access to Care #5 |
| <p>4.11</p> | <p><u>Linkage Into Core Services</u></p> <p>Agency staff will provide out-of-care clients with</p> | <ul style="list-style-type: none"> • Documentation of client referral is present in client file |

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| | <p>individualized information and referral to connect them into ambulatory outpatient medical care and other core medical services.</p> | |
| <p>4.12</p> | <p><u>Wait Lists</u> It is the expectation that clients will not be put on a Wait List nor will services be postponed or denied due to funding. Agency must notify the Administrative agency when funds for service are either low or exhausted for appropriate measures to be taken to ensure adequate funding is available. Should a wait list become required, the agency must, at a minimum, develop a policy that addresses how they will handle situations where service(s) cannot be immediately provided and a process by which client information will be obtained and maintained to ensure that all clients that requested service(s) are contacted after service provision resumes;</p> <p>The Agency will notify The Resource Group (TRG) or RWGA of the following information when a wait list must be created: An explanation for the cessation of service; and A plan for resumption of service. The Agency’s plan must address:</p> <ul style="list-style-type: none"> • Action steps to be taken Agency to resolve the service shortfall; and • Projected date that services will resume. <p>The Agency will report to TRG or RWGA in writing on a monthly basis while a client wait list is required with the following information:</p> <ul style="list-style-type: none"> • Number of clients on the wait list. • Progress toward completing the plan for resumption of service. • A revised plan for resumption of service, if necessary. | <ul style="list-style-type: none"> • Review of Agency’s Policies and Procedures Manual indicates compliance • Documentation of compliance with TRG’s Policy SG-19 Client Wait Lists • Documentation that agency notified their Administrative Agency when funds for services were either low or exhausted |
| <p>4.13</p> | <p><u>Intake</u> The agency conducts an intake to collect required data</p> | <ul style="list-style-type: none"> • Documentation in client record |

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| | <p>including, but not limited to, eligibility, appropriate consents and client identifiers for entry into CPCDMS. Intake process is flexible and responsive, accommodating disabilities and health conditions.</p> <p>When necessary, client is provided alternatives to office visits, such as conducting business by mail or providing home visits. Agency has established procedures for communicating with people with hearing impairments.</p> | <ul style="list-style-type: none"> Review of Agency’s Policies and Procedures Manual indicates compliance |
| 5.0 | Quality Management | |
| 5.1 | <p><u>Continuous Quality Improvement (CQI)</u></p> <p>Agency demonstrates capacity for an organized CQI program and has a CQI Committee in place to review procedures and to initiate Performance Improvement activities.</p> <p>The Agency shall maintain an up-to-date Quality Management (QM) Manual. The QM Manual will contain at a minimum:</p> <ul style="list-style-type: none"> The Agency’s QM Plan Meeting agendas and/or notes (if applicable) Project specific CQI Plans Root Cause Analysis & Improvement Plans Data collection methods and analysis Work products QM program evaluation Materials necessary for QM activities | <ul style="list-style-type: none"> Review of Agency’s Policies and Procedures Manual indicates compliance Up to date QM Manual |
| 5.2 | <p><u>Data Collection and Analysis</u></p> <p>Agency demonstrates capacity to collect and analyze client level data including client satisfaction surveys and findings are incorporated into service delivery. Supervisors shall conduct and document ongoing record reviews as part of quality improvement activity.</p> | <ul style="list-style-type: none"> Review of Agency’s Policies and Procedures Manual indicates compliance Up to date QM Manual Supervisors log on record reviews signed and dated Source Citation: HAB Monitoring Standards; Part I: Universal Standards; Section A: Access to Care #2 |
| 6.0 | Point Of Entry Agreements | |
| 6.1 | <p><u>Points of Entry (Core Services Only)</u></p> <p>Agency accepts referrals from sources considered to be points of entry into the continuum of care, in accordance with</p> | <ul style="list-style-type: none"> Review of Agency’s Policies and Procedures Manual indicates compliance Documentation of formal agreements with appropriate Points |

| | | |
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| | HIV Services policy approved by HRSA for the Houston EMA. | <p>of Entry</p> <ul style="list-style-type: none"> • Documentation of referrals and their follow-up |
| 7.0 | Emergency Management | |
| 7.1 | <p><u>Emergency Preparedness</u> Agency leadership including medical staff must develop an Emergency Preparedness Plan modeled after the Joint Commission’s regulations and/or Centers for Medicare and Medicaid guidelines for Emergency Management. The plan should, at a minimum utilize “all hazard approach” (hurricanes, floods, earthquakes, tornadoes, wide-spread fires, infectious disease outbreak and other public health threats, terrorist attacks, civil disturbances and collapse of buildings and bridges) to ensure a level of preparedness sufficient to support a range of emergencies. Agencies shall conduct an annual Hazard Vulnerability Analysis (HVA) to identify potential hazards, threats, and adverse events and assess their impact on care, treatment, and services they must sustain during an emergency. The agency shall communicate hazards identified with its community emergency response agencies and together shall identify the capability of its community in meeting their needs. The HVA shall be reviewed annually.</p> | <ul style="list-style-type: none"> • Emergency Preparedness Plan • Review of Agency’s Policies and Procedures Manual indicates compliance |
| 7.2 | <p><u>Emergency Management Training</u> In accordance with the Department of Human Services recommendations, all applicable agency staff must complete the following National Incident Management System (NIMS) courses developed by the Department of Homeland Security:</p> <ul style="list-style-type: none"> • IS -100.HC – Introduction to the Incident command system for healthcare/hospitals • IS-200.HC- Applying ICS to Healthcare organization • IS-700.A-National Incident Management System (NIMS) Introduction • IS-800.B National Response Framework (management) | <ul style="list-style-type: none"> • Documentation of all training including certificate of completion in personnel file |

| | | |
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| | <p>The above courses may be accessed at: www.training.fema.gov.</p> <p>Agencies providing support services only may complete alternate courses listed for the above areas</p> <p>All new employees are required to complete the courses within 90 days of hire.</p> | |
| 7.3 | <p><u>Emergency Preparedness Plan</u></p> <p>The emergency preparedness plan shall address the six critical areas for emergency management including</p> <ul style="list-style-type: none"> • Communication pathways • Essential resources and assets • patients' safety and security • staff responsibilities • Supply of key utilities such as portable water and electricity • Patient clinical and support activities during emergency situations. (www.jointcommission.org) | <ul style="list-style-type: none"> • Emergency Preparedness Plan |
| 7.4 | <p><u>Emergency Management Drills</u></p> <p>Agency shall implement emergency management drills twice a year either in response to actual emergency or in a planned exercise. Completed exercise should be evaluated by a multidisciplinary team including administration, clinical and support staff. The emergency plan should be modified based on the evaluation results and retested.</p> | <ul style="list-style-type: none"> • Emergency Management Plan • Review of Agency's Policies and Procedures Manual indicates compliance |
| 8.0 | Building Safety | |
| 8.1 | <p><u>Required Permits</u></p> <p>All agencies will maintain Occupancy and Fire Marshal's permits for the facilities.</p> | <ul style="list-style-type: none"> • Current required permits on file |

Substance Abuse Services

The Houston EMA Substance Abuse Treatment/Counseling service is an outpatient service providing treatment and/or counseling to HIV-infected individuals with substance abuse disorders. Services provided must be integrated with HIV-related issues that trigger relapse and must be coordinated with local TDSHS/SAS HIV Early Intervention funded programs. All services must be provided in accordance with the Texas Department of State Health Services/Substance Abuse services (TDSHS/SAS) Chemical Dependency Treatment Facility Standards as well as current treatment guidelines.

| | | |
|-----|---|---|
| 1.0 | Services are offered in such a way as to overcome barriers to access and utilization. Service is easily accessible to persons with HIV/AIDS. | |
| 1.1 | <p><u>Comprehensive Assessment</u></p> <p>A comprehensive assessment including the following will be completed within ten (10 days) of intake or no later than and prior to the third therapy session.</p> <ul style="list-style-type: none"> • Presenting Problem • Developmental/Social history • Social support and family relationships • Medical history • Substance abuse history • Psychiatric history • Complete mental status evaluation (including appearance and behavior, talk, mood, self attitude, suicidal tendencies, perceptual disturbances, obsessions/compulsions, phobias, panic attacks) • Cognitive assessment (level of consciousness, orientation, memory and language) <p>Specific assessment tools such as the Addiction Severity Index(ASI) could be used for substance abuse and sexual history and the Mini Mental State Examination (MMSE) for cognitive assessment.</p> | <ul style="list-style-type: none"> • Completed assessment in client’s record |
| 1.2 | <p><u>Psychosocial History</u></p> <p>A psychosocial history will be completed and must include:</p> <ul style="list-style-type: none"> • Education and training • Employment • Military service • Legal history | <ul style="list-style-type: none"> • Completed assessment in client’s record |

| | | |
|------------|--|--|
| | <ul style="list-style-type: none"> • Family history and constellation • Physical, emotional and/or sexual abuse history • Sexual and relationship history and status • Leisure and recreational activities • General psychological functioning | |
| 1.3 | <p><u>Treatment Plan</u></p> <p>Treatment plans are developed jointly with the counselor and client and must contain all the elements set forth in the Texas Department of State Health Services Administrative code for substance abuse including:</p> <ul style="list-style-type: none"> • Statement of the goal(s) of counseling • The plan of approach • Mechanism for review <p>The plan must also address full range of substances the patient is abusing</p> <p>Treatment plans must be completed no later than five working days of admission. Individual or group therapy should be based on professional guidelines. Supportive and educational counseling should include prevention of HIV related risk behaviors including substance abuse as clinically indicated.</p> | <ul style="list-style-type: none"> • Completed treatment plan in client’s record • Treatment Plan review documented in client’s records |
| 1.4 | <p><u>Treatment Plan Review</u></p> <p>In accordance with the Texas Department of State Health Services Administrative code on Substance Abuse, the treatment plan shall be reviewed at a minimum, midway through treatment and must reflect ongoing reassessment of client’s problems, needs and response to therapy. The treatment plan duration, review interval and process must be stated in the agency policies and procedures and must follow criteria outlined in the Administrative Code.</p> | <ul style="list-style-type: none"> • Review of agency’s Policy and Procedure Manual indicates compliance • Updated treatment plan in client’s record |
| 2.0 | Services are part of the coordinated continuum of HIV/AIDS services. | |
| 2.1 | <u>Clients Referral and Tracking</u> | <ul style="list-style-type: none"> • Documentation of referrals received • Documentation of referrals out |

| | | |
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| | <p>Agency receives referrals from a broad range of sources and makes appropriate referrals out when necessary.</p> <p>Agency must have collaboration agreements with mental health and primary care providers or demonstrate that they offer these services on-site.</p> | <ul style="list-style-type: none"> • Staff interviews indicate compliance • Collaborative agreements demonstrate that these services are offered on an off-site |
| 2.2 | <p><u>Facility License</u></p> <p>Agency is appropriately licensed by the Texas Department of State Health Services – Substance Abuse Services (TDSHS/SAS) with outpatient treatment designations.</p> | <ul style="list-style-type: none"> • Documentation of current agency licensure |
| 2.3 | <p><u>Minimum Qualifications</u></p> <p>All agency staff that provides direct client services must be properly licensed per current TDSHS/SAS requirements.</p> <p>Non-licensed staff must meet current TDSHS/SAS requirements.</p> | <ul style="list-style-type: none"> • Documentation of current licensure in personnel files |
| 3.0 | Staff HIV/AIDS knowledge is based on documented training and experience. | |
| 3.1 | <p><u>Staff Training</u></p> <p>All agency staff, volunteers and students shall receive initial and subsequent trainings in accordance to the Texas Administrative Code, rule §448.603 (a), (c) & (d).</p> | <ul style="list-style-type: none"> • Review of training curriculum indicates compliance • Documentation of all training in personnel file • Specific training requirements are specified in the staff guidelines • Documentation of all trainings must be done in accordance with the Texas Administrative Code §448.603 (b) |
| 3.2 | <p><u>Experience – HIV/AIDS</u></p> <p>A minimum of one (1) year documented HIV/AIDS work experience is required. Those who do not meet this requirement must be supervised by a staff member with at least 1 year of documented HIV/AIDS work experience.</p> | <ul style="list-style-type: none"> • Documentation of work experience in personnel file |
| 4.0 | Service providers are knowledgeable, accepting, and respectful of the needs of individuals with HIV/AIDS. Staff efforts are compassionate and sensitive to client needs. | |
| 4.1 | <p><u>Staff Supervision</u></p> <p>The agency shall ensure that each substance abuse Supervisor shall,</p> | <ul style="list-style-type: none"> • Review of personnel files indicates compliance |

| | | |
|--|---|---|
| | <p>at a minimal, be a Masters level professional (e.g. LPC, LCSW, LMSW, LMFT, Licensed Clinical Psychologist, LCDC if applicable) and licensed by the State of Texas and qualified to provide supervision per applicable TDSHS/SAS licensure requirements. Professional staff must be knowledgeable of the interaction of drug/alcohol use and HIV transmission and the interaction of prescribed medication with other drug/alcohol use.</p> | <ul style="list-style-type: none"> • Review of agency’s Policy and Procedure Manual indicates compliance |
|--|---|---|

Ryan White Part A
 OUTCOME MEASURES RESULTS
 FY 2011 Mid-Year Report

Substance Abuse Treatment

| Outcome Measure | Indicator | Data Collection Method |
|---|---|--|
| 1.0 Knowledge, Attitudes, and Practices | | |
| 1.1 Increased/maintained utilization of primary care services | A minimum of 70% of clients will utilize Part A/B/C/D primary medical care after accessing Part A-funded substance abuse treatment services | <ul style="list-style-type: none"> • CPCDMS |

From 3/1/2011 through 8/31/2011, 18 clients utilized Part A substance abuse treatment services. According to CPCDMS, 12 (67%) of these clients accessed primary care at least once during this time period after utilizing substance abuse treatment services, and 1 (5.6%) client accessed primary care for the first time after utilizing substance abuse treatment services.

| Outcome Measure | Indicator | Data Collection Method |
|--|--|--|
| 1.0 Knowledge, Attitudes, and Practices | | |
| 1.2 Decreased program dropout rate | Change in the rate of program completion over time | <ul style="list-style-type: none"> • Client Intake and Follow-Up Assessment |

Number of Clients completing Substance abuse treatment program during FY 2011: NA

Number of clients entering substance abuse treatment program during FY 2011: NA

Number of clients completing substance abuse treatment during FY 2011 who entered treatment in FY 2010: NA

Number of clients still in treatment who entered treatment in FY 2011: NA

| Outcome Measure | Indicator | Data Collection Method |
|---|---|-----------------------------------|
| 1.0 Knowledge, Attitudes, and Practices | | |
| 1.3 Increased participation in community support groups | Change in the rate of participation in community support groups over time | • Client Self-Administered Survey |

Survey Question: In the past two weeks, please estimate how many community support group meetings you have attended.

NUMBER AND PERCENT OF RESPONSES:

| | Baseline | % | 2 Months | % |
|-----------------------------|----------|-----|----------|------|
| 1 - None | 1 | 33% | 0 | 0% |
| 2 - One to two meetings | 1 | 33% | 0 | 0% |
| 3 - Three to five meetings | 1 | 33% | 1 | 100% |
| 4 - Six to ten meetings | 0 | 0% | 0 | 0% |
| 5 - Eleven or more meetings | 0 | 0% | 0 | 0% |

AVERAGE RESPONSE:

Baseline = 2.00

Two Months = 3.00

CHANGE OVER TIME: Of those clients who have completed a baseline and follow-up assessment. For this question, it is desirable to **increase (or maintain)** the value of the response over time.

| Baseline to 2 Months | # | % |
|----------------------|---|------|
| Increased | 1 | 100% |
| Maintained | 0 | 0% |
| Decreased | 0 | 0% |

| Outcome Measure | Indicator | Data Collection Method |
|---|---|--|
| 2.0 Health | | |
| 2.1 Slowing/prevention of disease progression | a. 75% of clients for whom there is lab data in the CPCDMS will increase or maintain CD4 counts over time b. 75% of clients for whom there is lab data in the CPCDMS will decrease or maintain viral loads over time | <ul style="list-style-type: none"> • CPCDMS |

For CD4 and viral load tests in the CPCDMS, a baseline test is a client's earliest test result date within 365 days prior to the latest test result date entered into the CPCDMS by a Part A-funded primary care provider – this is not necessarily a client's earliest test ever.

A. CD4 Counts:

Table A compares FY 2011 clients' baseline CD4 count to their most recent CD4 count. Note: it is desirable to increase (or maintain) CD4 counts over time.

Out of 6 substance abuse treatment clients who have had more than one CD4 count recorded in the CPCDMS as of 8/31/2011 (see "Total" column), 1 (17%) clients increased their CD4 count, 4 (67%) clients maintained their CD4 count, and 1 (17%) clients had a decrease in their CD4 count.

B. Viral Loads:

Table B compares FY 2011 clients' baseline viral load to their most recent viral load. Note: it is desirable to decrease (or maintain) viral loads over time.

Out of 6 substance abuse treatment clients who have had more than one viral load recorded in the CPCDMS as of 8/31/2011 (see "Total" column), 1 (17%) clients increased their viral load, 4 (67%) clients maintained their viral load, and 1 (17%) clients had a decrease in their viral load.

Table A: CD4 Counts of Substance Abuse Treatment Clients by Gender, Race and Ethnicity

| | Increased CD4 Count* | | | | Maintained CD4 Count** | | | Decreased CD4 Count | | | | Total |
|------------------|----------------------|--------------|------------|---------|------------------------|------------|---------|---------------------|--------------|------------|---------|--------|
| | Number | Avg Baseline | Avg Latest | Percent | Number | Avg Latest | Percent | Number | Avg Baseline | Avg Latest | Percent | Number |
| Female | 0 | 0 | 0 | 0% | 0 | 0 | 0% | 0 | 0 | 0 | 0% | 0 |
| Male | 1 | 221 | 351 | 17% | 4 | 756 | 67% | 1 | 324 | 195 | 17% | 6 |
| | | | | | | | | | | | | |
| African American | 1 | 221 | 351 | 33% | 2 | 697 | 67% | 0 | 0 | 0 | 0% | 3 |
| Native American | 0 | 0 | 0 | 0% | 1 | 1,266 | 100% | 0 | 0 | 0 | 0% | 1 |
| White | 0 | 0 | 0 | 0% | 1 | 365 | 50% | 1 | 324 | 195 | 50% | 2 |
| | | | | | | | | | | | | |
| Hispanic | 0 | 0 | 0 | 0% | 1 | 1,266 | 100% | 0 | 0 | 0 | 0% | 1 |
| Non-Hispanic | 1 | 221 | 351 | 20% | 3 | 586 | 60% | 1 | 324 | 195 | 20% | 5 |
| | | | | | | | | | | | | |
| Total | 1 | 221 | 351 | 17% | 4 | 756 | 67% | 1 | 324 | 195 | 17% | 6 |

*mm

**"Maintained" is defined as +/- 30% from the baseline CD4 count.

Table B: Viral Loads of Substance Abuse Treatment Clients by Gender, Race and Ethnicity

| | Increased Viral Load* | | | | Maintained Viral Load** | | | Decreased Viral Load | | | | Total |
|------------------|-----------------------|--------------|------------|---------|-------------------------|------------|---------|----------------------|--------------|------------|---------|--------|
| | Number | Avg Baseline | Avg Latest | Percent | Number | Avg Latest | Percent | Number | Avg Baseline | Avg Latest | Percent | Number |
| Female | 0 | 0 | 0 | 0% | 0 | 0 | 0% | 0 | 0 | 0 | 0% | 0 |
| Male | 1 | 48 | 1,580 | 17% | 4 | 887 | 67% | 1 | 44,200 | 20 | 17% | 6 |
| | | | | | | | | | | | | |
| African American | 0 | 0 | 0 | 0% | 2 | 1,549 | 67% | 1 | 44,200 | 20 | 33% | 3 |
| Native American | 0 | 0 | 0 | 0% | 1 | 48 | 100% | 0 | 0 | 0 | 0% | 1 |
| White | 1 | 48 | 1,580 | 50% | 1 | 400 | 50% | 0 | 0 | 0 | 0% | 2 |
| | | | | | | | | | | | | |
| Hispanic | 0 | 0 | 0 | 0% | 1 | 48 | 100% | 0 | 0 | 0 | 0% | 1 |
| Non-Hispanic | 1 | 48 | 1,580 | 20% | 3 | 1,166 | 60% | 1 | 44,200 | 20 | 20% | 5 |
| | | | | | | | | | | | | |
| Total | 1 | 48 | 1,580 | 17% | 4 | 887 | 67% | 1 | 44,200 | 20 | 17% | 6 |

*c/ml

**"Maintained" is defined as a change of less than threefold from the baseline viral load

| Outcome Measure | Indicator | Data Collection Method |
|------------------------------------|--|-----------------------------------|
| 2.0 Health | | |
| 2.2 Decreased incidence of relapse | Change in the number of relapses over time | • Client Self-Administered Survey |

Survey Question: In the past two weeks, please estimate how many days you have abstained from alcohol and drugs.

NUMBER AND PERCENT OF RESPONSES:

| | Baseline | % | 2 Months | % |
|--------------------------------|----------|-----|----------|------|
| 1 - None | 0 | 0% | 0 | 0% |
| 2 - One to four days | 0 | 0% | 0 | 0% |
| 3 - Five to nine days | 2 | 67% | 0 | 0% |
| 4 - Ten to thirteen days | 0 | 0% | 0 | 0% |
| 5 - I have abstained every day | 1 | 33% | 1 | 100% |

AVERAGE RESPONSE:

Baseline = 3.67

Two Months = 5.00

CHANGE OVER TIME: Of those clients who have completed a baseline and follow-up assessment. For this question, it is desirable to **increase (or maintain)** the value of the response over time.

| Baseline to 2 Months | # | % |
|----------------------|---|------|
| Increased | 1 | 100% |
| Maintained | 0 | 0% |
| Decreased | 0 | 0% |

| Outcome Measure | Indicator | Data Collection Method |
|-----------------------------|---|---|
| 3.0 Quality of Life | | |
| 3.1 Improved social support | Change in the percentage of clients who report improved social support regarding their drug and alcohol abuse over time | <ul style="list-style-type: none"> Self-Administered Client Survey |

Survey Question: In the past two weeks, how often have you had someone you could talk to about your problems with alcohol or drug abuse or someone who could give you useful advice about dealing with alcohol and drug abuse?

NUMBER AND PERCENT OF RESPONSES:

| | Baseline | % | 2 Months | % |
|----------------------|----------|-----|----------|------|
| 1 - Never | 0 | 0% | 0 | 0% |
| 2 - Rarely | 1 | 33% | 0 | 0% |
| 3 - Sometimes | 0 | 0% | 1 | 100% |
| 4 - Most of the time | 1 | 33% | 0 | 0% |
| 5 - All of the time | 1 | 33% | 0 | 0% |

AVERAGE RESPONSE:

Baseline = 3.67

Two Months = 3.00

CHANGE OVER TIME: Of those clients who have completed a baseline and follow-up assessment. For this question, it is desirable to **increase (or maintain)** the value of the response over time.

| Baseline to 2 Months | # | % |
|-----------------------------|---|------|
| Increased | 0 | 0% |
| Maintained | 0 | 0% |
| Decreased | 1 | 100% |

| Outcome Measure | Indicator | Data Collection Method |
|----------------------------|--|-----------------------------------|
| 3.0 Quality of Life | | |
| 3.2 Improved coping skills | Change in the percentage of clients who report improved coping skills regarding their drug and alcohol abuse over time | • Self-Administered Client Survey |

Survey Question: In the past two weeks, how would you rate your ability to cope with your problems with drug and alcohol abuse?

NUMBER AND PERCENT OF RESPONSES:

| | Baseline | % | 2 Months | % |
|---------------|----------|-----|----------|------|
| 1 - Excellent | 0 | 0% | 0 | 0% |
| 2 – Very good | 0 | 0% | 1 | 100% |
| 3 - Good | 1 | 33% | 0 | 0% |
| 4 - Fair | 0 | 0% | 0 | 0% |
| 5 - Poor | 2 | 67% | 0 | 0% |

AVERAGE RESPONSE:

Baseline = 4.33

Two Months = 2.00

CHANGE OVER TIME: Of those clients who have completed a baseline and follow-up assessment. For this question, it is desirable to **decrease (or maintain)** the value of the response over time.

| Baseline to 2 Months | # | % |
|-----------------------------|---|------|
| Increased | 0 | 0% |
| Maintained | 0 | 0% |
| Decreased | 1 | 100% |

| Outcome Measure | Indicator | Data Collection Method |
|--|--|-----------------------------------|
| 4.0 Cost-Effectiveness | | |
| 4.1 Decreased number of hospitalization and/or ER visits | Change in the number of HIV-related hospitalizations/ER visits over time | • Self-Administered Client Survey |

Survey Question: In the past three months, how many times have you been hospitalized or have visited the emergency room (ER) due to HIV-related complications?

NUMBER AND PERCENT OF RESPONSES:

| | Baseline | % | 2 Months | % |
|------------------------|----------|------|----------|------|
| 1 - None | 3 | 100% | 1 | 100% |
| 2 - One time | 0 | 0% | 0 | 0% |
| 3 - Two times | 0 | 0% | 0 | 0% |
| 4 - Three times | 0 | 0% | 0 | 0% |
| 5 - Four or more times | 0 | 0% | 0 | 0% |

AVERAGE RESPONSE:

Baseline = 1.00

Two Months = 1.00 (No hospitalizations or ER visits)

CHANGE OVER TIME: Of those clients who have completed a baseline and follow-up assessment. For this question, it is desirable to **decrease (or maintain)** the value of the response over time.

| Baseline to 2 Months | # | % |
|-----------------------------|---|------|
| Increased | 0 | 0% |
| Maintained | 1 | 100% |
| Decreased | 0 | 0% |

Alcohol Alert

Number 80

Alcohol and HIV/AIDS: Intertwining Stories

Human immunodeficiency virus (HIV)—the pathogen responsible for the current pandemic of acquired immune deficiency syndrome (AIDS)—targets the body's immune system. HIV infection puts a person at risk for a multitude of diseases that someone with a healthy immune system generally would fight off. When HIV was recognized in the 1980s, testing positive for HIV infection was, in fact, a death sentence. Now, however, the availability of anti-HIV medications has made living with the virus a reality. Patients who stick to a careful medication regimen (i.e., taking several medicines at specific times throughout the day) may live from 20 and 40 years with HIV and do not always die of AIDS-related illnesses.



People with HIV are now living longer and healthier lives. Nevertheless, many challenges remain in preventing both infection with the virus and progression of the disease. One of the many factors that thwarts efforts to prevent the spread of the infection and the treatment of infected patients is the use and abuse of alcohol by those who are at risk for infection or who already are infected. Scientists are gaining a better understanding of the complex relationship between alcohol consumption and HIV infection. Abusing alcohol or other drugs can impair judgment, leading a person to engage in risky sexual behaviors. People who drink also tend to delay getting tested for HIV and, if they do test positive, tend to postpone seeking treatment. When receiving treatment, they may have difficulty following the complex medications regimen. All of these factors increase the likelihood that an infected person will infect others or will go on to develop AIDS.¹

Alcohol, then, occupies a prominent place in the HIV/AIDS landscape. This *Alcohol Alert* outlines the role that alcohol has in HIV/AIDS prevention, transmission, and disease progression and touches on recent efforts to reduce these strong, yet preventable, effects.

Defining the Population

Each year in the United States, between 55,000 and 60,000 people become infected with HIV, for a total of more than 1.1 million now infected. The population that once was primarily made up

Alcohol use is closely intertwined with the spread of HIV.

NIHAA



National Institutes of Health

U.S. Department of Health and Human Services

National Institute on Alcohol Abuse and Alcoholism

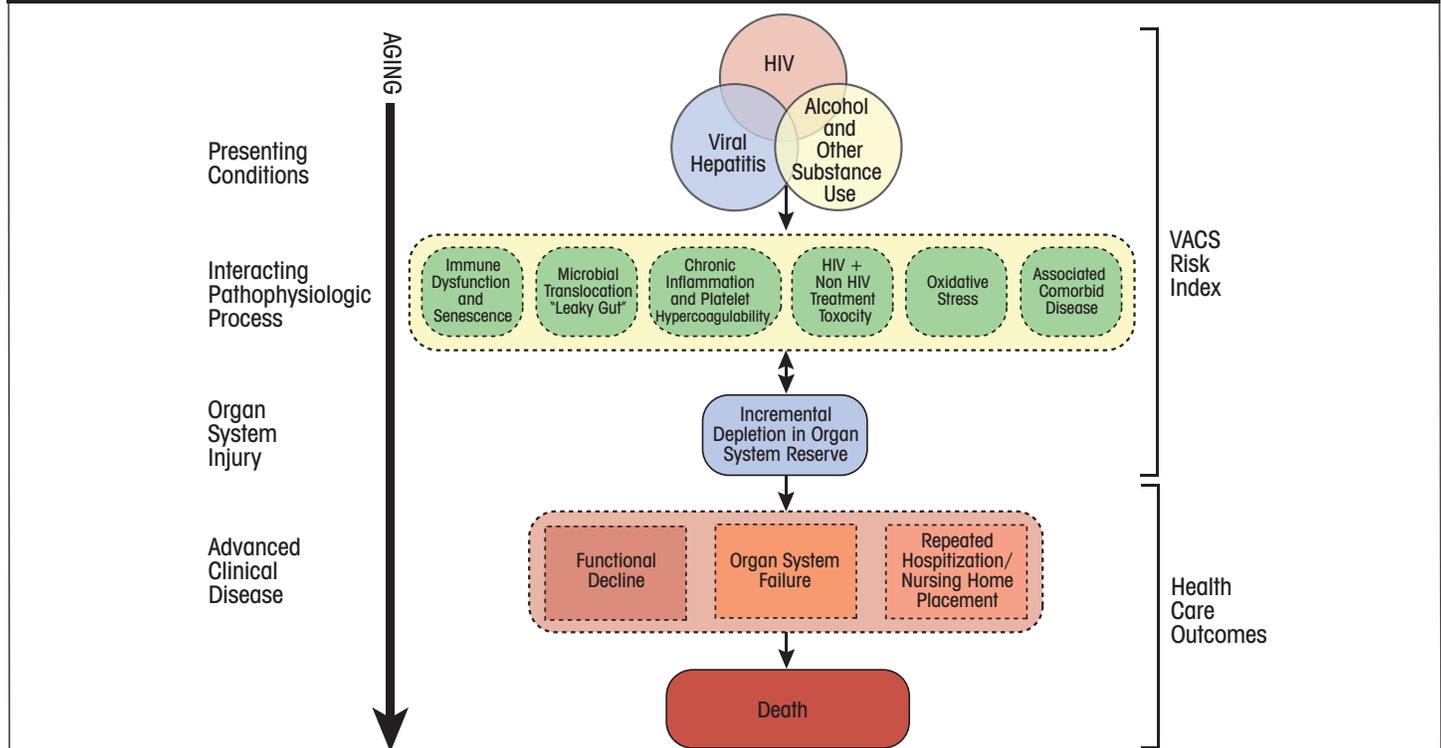
of homosexual White men is now composed increasingly of people of color, women, and young people. Of these new HIV cases, the proportion of women rose from 7 percent in 1985 to 25 percent in 2000. In that group, African American and Hispanic women were disproportionately represented compared with White women. Also, HIV/AIDS is now a leading cause of death among women in the United States, especially those of childbearing ages (i.e., between 25 and 44 years).¹ As more young women are becoming infected, there is growing concern that the virus will be transmitted to their children, either during pregnancy or after birth.

One of the main reasons for this shift in the HIV population is that heterosexual sex is now a primary route for HIV transmission. Alcohol use is one of the factors that increases the risk of HIV transmission among heterosexuals. Particularly among women, a strong association has been seen between alcohol and other drug abuse, infection with HIV, and progression to AIDS.² Although additional studies are needed to further define alcohol use patterns among infected and at-risk people, it is clear that alcohol use is closely intertwined with the spread of HIV.

ART as a Prevention Tool

In hospital settings, health care workers accidentally exposed to HIV (e.g., through needle sticks) receive temporary ART regimens to prevent infection. This has led scientists to examine whether ART could be used to prevent as well as treat HIV. According to that research, HIV patients who take ART regimens do have a reduced rate of transmitting HIV to their sex partners. Other studies are looking at whether oral ART regimens used for treatment could protect against infection when taken either before or after exposure to HIV. In real-world settings, alcohol use may interfere with the effectiveness of these approaches. Alcohol consumption is associated with missing doses of medication, and HIV patients' ART is less effective at keeping the virus in check if they do not adhere to their regimens. Also, drinking would likely interfere with people's ability to stick to the ART regimens taken for prevention just as it does in treatment.²⁵

Conceptual Model for Living With HIV Infection



This figure is based on findings from the Veteran Aging Cohort Study, a large (approximately 7,000 participants) and lengthy (currently 7 to 8 years) study exploring the effects of alcohol on HIV outcomes within the broader context of aging. The study has helped to define a VACS Risk Index to identify those individuals most at risk. The researchers hope to use the VACS Risk Index to design better interventions for helping people with HIV to live longer and healthier lives.

SOURCE: Justice, A.; Sullivan, L.; and Fiellin, D. HIV/AIDS, comorbidity, and alcohol. *Alcohol Research & Health*. 33(3):258–266, 2010.

Alcohol and HIV: A Complex Relationship

People infected with HIV are nearly twice as likely to use alcohol than people in the general population. Moreover, up to 50 percent of adults with HIV infection have a history of alcohol problems.^{3,4} Understanding how alcohol influences HIV is vital, both in treating those infected with HIV and in stopping the spread of this disease.

The link between alcohol use and HIV is complex. Research shows that alcohol has numerous effects, both direct and indirect, on how this virus develops and how quickly it causes disease. Alcohol can increase how fast the virus grows, leading to higher amounts of virus (i.e., the viral load) in the body. Those high concentrations, in turn, can increase the spread of the disease. In one study, women receiving antiretroviral therapy (ART)* who drank moderately or heavily were more likely to have higher levels of the HIV virus, making it easier for them to spread the virus to others.²

ART itself can be problematic in people who drink. A major cause of illness and death among HIV-infected patients

* Antiretroviral therapy (ART) is the use of medications for the treatment of infection by a specific type of virus, retrovirus, primarily HIV. Standard ART consists of at least three drugs for maximum suppression of the HIV virus and for stopping the progression of HIV to AIDS. <http://www.who.int/hiv/topics/treatment/en/index.html>.

that has emerged since the advent of ART is liver disease. Antiretroviral medications not only are processed in the liver, they also have toxic effects on the organ, and some drug combinations can lead to severe toxicity in up to 30 percent of patients who use them. These patients are left with the grim choice of continuing ART to prevent the progression of the virus to AIDS—thereby risking further liver damage—or stopping ART to prevent liver damage and progressing to AIDS. Further, a large proportion of people with HIV also are infected with hepatitis C (HCV). Alcohol abuse and dependence significantly increase the risk of liver damage both in people with HIV alone and with HCV co-infection.⁵

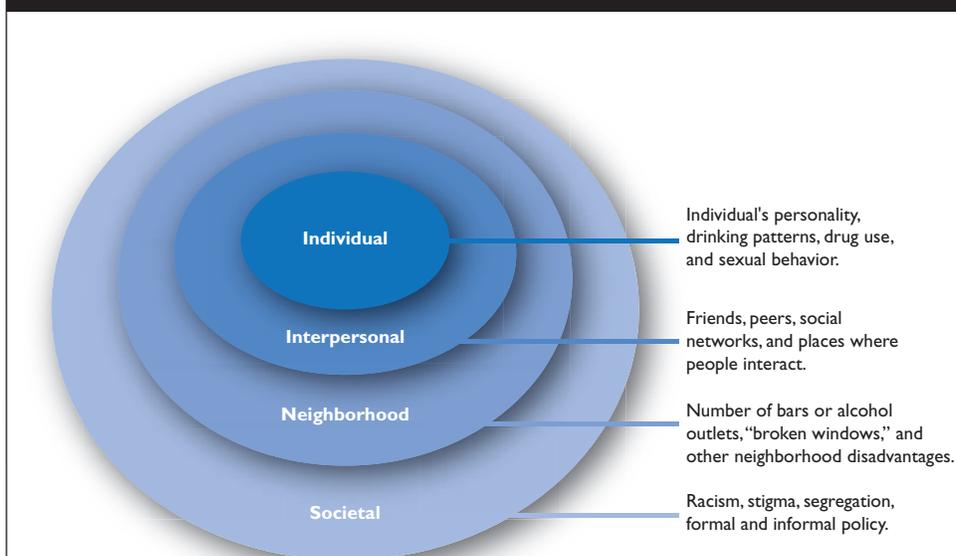
Research suggests too that alcohol may interfere directly with ART medications used for HIV, essentially blocking their effectiveness.⁶ Moreover, patients who drink are nine times more likely to fail to comply with their medication regimens compared with sober patients.^{7,8} When HIV-infected drinkers fail to take their medications or do not take them correctly, it can lead to a higher viral load and an increasing likelihood that the virus will become resistant to the therapy.

ART, alcohol consumption, and HIV infection can be harmful in other ways as well. HIV patients typically experience declines in organ function earlier in life than do uninfected people. And because people with HIV tend to drink heavily

well into their middle and older years, these organs are even more at risk for injury. For example, both HIV infection and certain types of ART medications increase a person's risk for heart disease, because they change the balance of different fats—such as cholesterol—in blood, induce inflammation, and affect the blood-clotting process. Both excessive alcohol use and infection with hepatitis C virus further enhance the risk. Also, the medicines used to treat cholesterol problems can be particularly harmful when taken by patients with liver damage from alcohol abuse or hepatitis C virus. Heavy alcohol consumption (more than six drinks per day) has been linked to heart disease in HIV-infected people; thus, stopping or cutting down on their drinking may help to reduce the risk of heart disease.⁹

Another organ impacted by alcohol use and by HIV infection is the lung. Patients who drink or who have HIV infection are more likely to suffer from pneumonia and to have chronic conditions such as emphysema. Scientists do not yet know if alcohol and HIV together raise the risk for

Framework for HIV/AIDS Risk



The socioecological framework for HIV/AIDS risk shows the factors that affect risk on a number of different levels. Risks range from "broken windows" (or the number of abandoned or vacant buildings in a neighborhood) to the individual's use of alcohol and his or her sexual behavior.

SOURCE: Scribner, R.; Theall, K.P.; Simonsen, N.; and Robinson, W. HIV risk and the alcohol environment: advancing an ecological epidemiology for HIV/AIDS. *Alcohol Research & Health* 33(3):179–183, 2010.

injury to the lung. However, studies using animals suggest that this combination does indeed increase the risk for problems. Lung infections remain a major cause of illness and death in those with HIV, and chronic alcohol consumption has been found to increase the rate at which viruses infect lungs and aid in the emergence of opportunistic infections (i.e., rare viruses that infect only people whose immune systems are weakened by a condition like HIV infection).^{10,11}

Advances in imaging techniques have revealed another organ at risk for HIV and alcohol injury—the brain. In studies comparing patients with alcoholism, HIV infection, or both, people with alcoholism had more changes in brain structure and abnormalities in brain tissues than those with HIV alone. Patients with HIV infection and alcoholism were especially likely to have difficulty remembering and to experience problems with coordination and attention. Those with alcoholism whose HIV had progressed to AIDS had the greatest changes in brain structure.¹²

Preventing the Spread of HIV

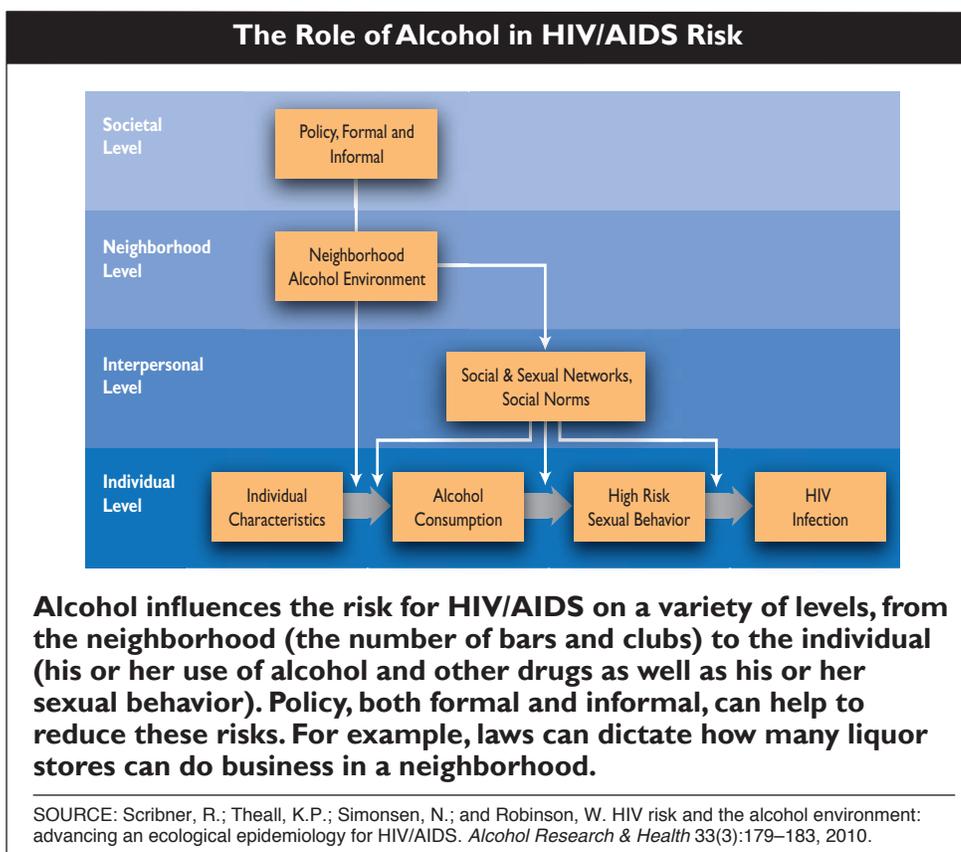
In addition to these direct effects, alcohol also works indirectly to raise the risk for HIV and for the problems associated with this virus. For example, alcohol consumption often occurs in bars and clubs where people meet potential sex partners. These establishments create networks of at-risk people through which HIV can spread rapidly. In addition, alcohol abusers' high-risk

sexual behaviors make them more likely to be infected with other sexually transmitted diseases; those, in turn, increase the susceptibility to HIV infection. They also are more likely to abuse illegal substances, which can involve other risky behaviors, such as needle sharing.⁶

Currently, the primary HIV prevention efforts seek to change people's risky sexual behaviors and to promote the use of barriers, such as topical microbicides and condoms, which kill the virus or reduce the spread of disease during sexual contact. Unfortunately alcohol use can interfere with these efforts, impairing people's judgment and making them less likely to use protection during sex.

Although people who abuse alcohol and other drugs can be a difficult population to reach, research shows that individuals in treatment programs are less likely to engage in risky sexual behavior¹³ or to inject drugs or share needles¹⁴—behaviors that greatly increase the spread of the infection. Thus, alcohol treatment itself can help prevent risky behaviors.

Also, some research suggests that looking at the places, where alcohol consumption and risky sexual behaviors take place (such as bars and clubs) can help in the development of social policy tools and successful interventions,¹⁵ including targeting such environments with prevention messages^{16,17} and providing HIV testing, condoms, and sexual health services at those establishments.¹⁸



Treatment—Targeting HIV and Alcohol

As noted previously, HIV-infected individuals who drink, even those who consume only low levels of alcohol, are less likely to comply with a strict ART regimen, which may increase the risk of AIDS.¹⁹ Drinking fewer than five standard drinks per day, one or more times a week, has been found to reduce survival among patients with HIV by more than 1 year. Binge drinking (defined as five or more drinks per day) produces even more pronounced effects. Binge drinking twice a week was found to reduce survival rates by 4 years, and daily binge drinking reduced survival by 6.4 years, a 40-percent decrease in life expectancy.²⁰

When ART fails, the patient progresses to AIDS. The significance of this problem, along with alcohol's other negative effects on the success of ART,

has led some scientists to suggest that one way to improve the care of HIV patients is to provide screening for alcohol use disorders on a regular basis. Those who screen positive could then receive a treatment aimed at reducing alcohol consumption.¹⁹

Though it is clear that substance abuse treatment among HIV-infected patients can contribute greatly to their care, little research has been done in this area. The use of behavioral interventions in HIV-infected people who have a history of alcohol problems has produced only limited evidence that such interventions work.²¹ Some clinical trials have produced promising results, using interventions that combine one-on-one counseling with various forms of peer education, support group sessions, and telephone-based interactive methods to guide participants through stages to change their drinking behavior. In those studies, both drinking levels and risky sexual behavior were reduced in some patients.²² Interestingly, a review of studies aimed at reducing drinking in HIV-infected people found that no trials have examined the success of the four medications now available to treat alcohol dependence (i.e., disulfiram, naltrexone, acamprosate, and topiramate) in HIV patients.

There are significant barriers that exist when addressing alcohol problems among HIV-infected patients, including the additional commitments of time, money, and effort involved in treating alcoholism. Drinkers who do not suffer from severe alcohol problems may not think treatment is worthwhile or may fear the stigma associated with alcoholism treatment. Those patients may be more likely to receive treatment if the interventions are simple, require little effort, and take place in settings in which the patients already are receiving testing or treatment for HIV.¹ Along these lines, studies using telephone-based interactive interventions show that this technology also may help to boost the effectiveness of treatment for alcohol problems.

Clearly, questions remain concerning the treatment of alcoholism in HIV-infected patients. For example, is it better to treat a patient for alcoholism before starting ART therapy or concurrently? If ART regimens were simpler, would alcohol use have a reduced impact on patients' ability to adhere to the treatments?

NIAAA and other Institutes at the National Institutes of Health are sponsoring the Veterans Aging Cohort Study (VACS), which looks at the effects of alcohol on HIV patients as they age.²³ One innovation in this study is the VACS Risk Index, which uses indicators of liver and kidney injury, hepatitis, immune suppression and illnesses—such as certain forms of pneumonia—to predict alcohol's impact on illness and death. Because it relies on biological markers, the index provides an accurate measure of how much alcohol the patients have consumed. VACS study authors hope to use the index to answer these questions and to identify behavioral and medical treatments that can help decrease patients' alcohol use and reduce their risk of illness and death.

Conclusion

Epidemiologic data show that HIV's spread has not slowed in recent years and may be on the rise in certain populations.²⁴ Alcohol problems promote the spread of HIV, and increase illness and death in people with HIV. Decreasing drinking and the behaviors it encourages is one of the most promising ways to reduce these problems. Understanding the complex interplay between alcohol use and HIV will lead to better care for those already infected. Such knowledge also will play a vital role in developing behavioral, medical, and social policy tools for reducing the spread of the disease.

References

- Bryant, K.J.; Nelson, S.; Braithwaite, R.S.; and Roach, D. Integrating HIV/AIDS and alcohol research. *Alcohol Research & Health* 33(3):167–178, 2010.
- NIAID. *Women's Health in the United States: Research on Health Issues Affecting Women*. NIH Pub. No. 04-4697. Bethesda, MD: NIAID, 2004.
- Lefevre, F.; O'Leary, B.; Moran, M.; et al. Alcohol consumption among HIV-infected patients. *Journal of General Internal Medicine* 10(8):458–460, 1995. PMID: 7472704
- Samet, J.H.; Phillips, S.J.; Horton, N.J.; et al. Detecting alcohol problems in HIV-infected patients: Use of the CAGE questionnaire. *AIDS Research and Human Retroviruses* 20(2):151–155, 2004. PMID: 15018702
- Barve, S.; Kapoor, R.; Moghe, A.; Ramirez, J.A.; Easton, J.W.; Gobejshvili, L. Joshi-Barve, S.; and McClain, C.J. Focus on the Liver: Alcohol use, highly active antiretroviral therapy, and liver disease in HIV-infected patients. *Alcohol Research & Health* 33(3):229–236, 2010.
- Pandrea, I.; Happel, K.I.; Amedee, A.M.; Bagby, G.J.; and Nelson, S. Alcohol's role in HIV transmission and disease progression. *Alcohol Research & Health* 33(3):203–218, 2010.
- Palepu, A.; Tyndall, M.W.; Li, K.; et al. Alcohol use and incarceration adversely affect HIV-1 RNA suppression among injection drug users starting antiretroviral therapy. *Journal of Urban Health* 80(4):667–675, 2003.
- Parsons, J.T.; Rosof, E.; and Mustanski, B. The temporal relationship between alcohol consumption and HIV-medication adherence: A multilevel model of direct and moderating effects. *Health Psychology* 27(5):628–637, 2008. PMID: 18823189
- Freilburg, M.S.; and Kraemer, K.L. Focus on the heart: alcohol consumption, HIV infection, and cardiovascular disease. *Alcohol Research & Health* 33(3):237–246, 2010.
- Bagby, G.J.; Stoltz, D.A.; Zhang, P.; et al. The effect of chronic binge ethanol consumption on the primary stage of SIV infection in rhesus macaques. *Alcoholism: Clinical and Experimental Research* 27:495–502, 2003. PMID: 12658116
- Quintero, D.; and Guidot, D.M. Focus on the lung. *Alcohol Research & Health* 33(3):219–228, 2010.
- Rosenbloom, M.J.; Sullivan, E.V.; and Pfefferbaum, A. Focus on the brain: HIV infection and alcoholism—comorbidity effects on brain structure and function. *Alcohol Research & Health* 33(3):247–257, 2010.
- Needle, R.H.; Coyle, S.L.; Norman, J.; et al. HIV prevention with drug-using populations — current status and future prospects: Introduction and overview. *Public Health Reports* 113(Suppl 1):4–18, 1998. PMID: 9722806
- Fuller, C.M.; Ford, C.; and Rudolph, A. Injection drug use and HIV: Past and future considerations for HIV prevention and interventions. In: Mayer, K., and Pizer, H.F., Eds. *HIV Prevention: A Comprehensive Approach*. London: Elsevier, 2009, pp. 305–339.
- Scribner, R.; Theall, K.P.; Simonsen, N.; and Robinson, W. HIV risk and the alcohol environment: advancing an ecological epidemiology for HIV/AIDS. *Alcohol Research & Health* 33(3):179–183, 2010.
- Kelly, J.A.; St. Lawrence, J.S.; Stevenson, L.Y.; et al. Community AIDS/HIV risk reduction: The effects of endorsements by popular people in three cities. *American Journal of Public Health* 82:1483–1489, 1992. PMID: 1443297
- Kelly, J.A.; Murphy, D.A.; Sikkema, K.J.; et al. Randomized, controlled community-level HIV-prevention intervention for sexual-risk behaviour among homosexual men in US cities. *Lancet* 350:1500–1505, 1997. PMID: 9388397
- Kalichman, S.C. Social and structural HIV prevention in alcohol-serving establishments: review of international interventions across populations. *Alcohol Research & Health* 33(3):184–194, 2010.
- Braithwaite, R.S., and Bryant, K. Influence of alcohol consumption on adherence to and toxicity of antiretroviral therapy and survival. *Alcohol Research & Health* 33(3):280–287, 2010.
- Braithwaite, R.S.; McGinnis, K.A.; Conigliaro, J.; et al. A temporal and dose-response association between alcohol consumption and medication adherence among veterans in care. *Alcoholism: Clinical and Experimental Research* 29(7):1190–1197, 2005. PMID: 16046874
- Carey, M.P.; Senn, T.E.; Vanable, P.A.; et al. Brief and intensive behavioral interventions to promote sexual risk reduction among STD clinic patients: Results from a randomized controlled trial. *AIDS and Behavior* 14(3):504–517, 2010. PMID: 19590947
- Samet, J.H.; and Walley, A.Y. Interventions targeting HIV-infected risky drinkers: drops in the bottle. *Alcohol Research & Health* 33(3):267–279, 2010.
- Justice, A.; Sullivan, L.; and Fiellin, D. et al. HIV/AIDS, comorbidity, and alcohol: can we make a difference? *Alcohol Research & Health* 33(3):258–266, 2010.
- Hall, H.I.; Geduld, J.; Boulos, D.; et al. Epidemiology of HIV in the United States and Canada: Current status and ongoing challenges. *Journal of Acquired Immune Deficiency Syndrome* 51 (Suppl. 1):S13–S20, 2009. PMID: 19384096
- Mayer, K.H.; Skeer, M.; and Mimiaga, M.J. Biomedical approaches to HIV prevention. *Alcohol Research & Health* 33(3):195–202, 2010.

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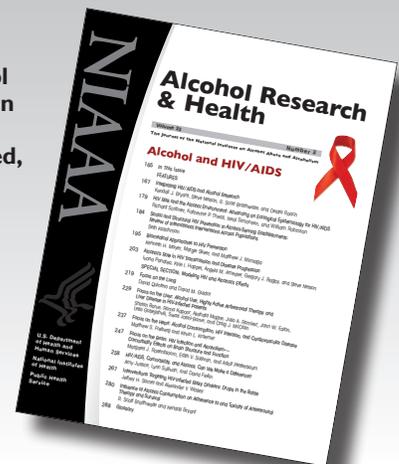
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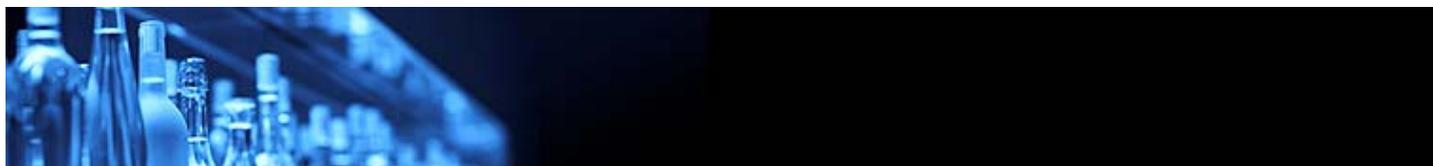
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- ▶ *Alcohol Research & Health*, 33(3) describes the complex relationship between alcohol consumption and HIV/AIDS. Articles examine the ways in which alcohol influences the risk for infection by HIV, transmission of the virus, and progression to AIDS. Other articles address alcohol's role in the prevention and treatment of HIV/AIDS. The medical aspects of HIV/AIDS and alcohol use also are featured, including the effects on the brain, immune system, and other body systems.
- ▶ For more information on the latest advances in alcohol research, visit NIAAA's Web site, www.niaaa.nih.gov



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Alcohol & HIV: What You Need to Know

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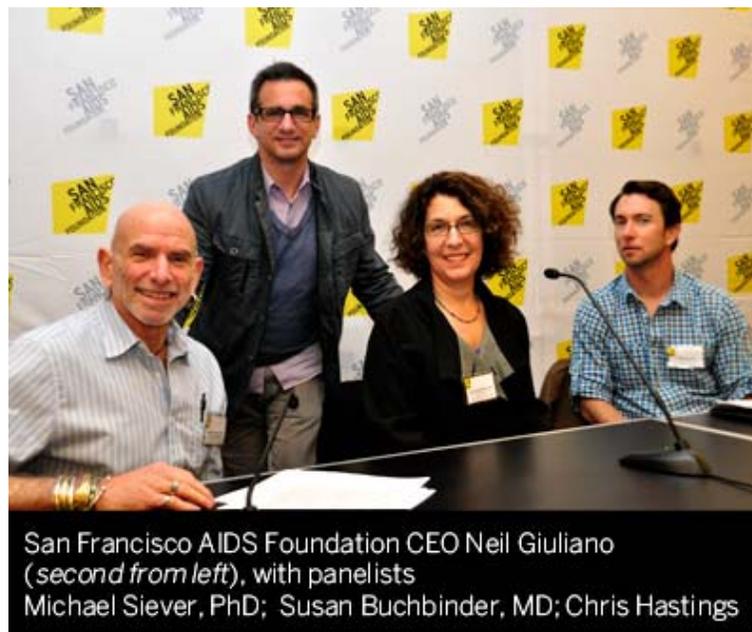
“We are not here to wag fingers at bars or people who drink. We are here to provide information and resources so that everyone has the knowledge to make the best possible decisions about their health.”

**—Neil Giuliano
CEO, San Francisco AIDS Foundation**

On February 16, 2012, San Francisco AIDS Foundation held a public HIVision forum titled, “Alcohol & HIV: Current Thinking about Drinking.” In his introduction, foundation CEO Neil Giuliano observed that alcohol use in our community is pervasive—so much so, that “the line between drinking and drinking too much often gets blurred. And when we cross that line, many of us don’t have the tools to recognize it and know where to get help.” According to the Centers for Disease Control and Prevention (CDC), Giuliano said, one in six U.S. adults binge drinks, defined as consuming five or more drinks within two hours for men, and four or more drinks within two hours for women. Excessive alcohol use contributes to car crashes, violence, and sexually transmitted infections like HIV and is implicated in nearly 80,000 deaths per year.

“So,” asked Giuliano, “is drinking bad for us?” Not necessarily, given research showing cardiovascular benefits of moderate drinking. In addition, he said, “we want to recognize the important role that our bars and clubs—and the LGBT merchants and allies who run them—play in creating a very strong sense of community” here in San Francisco. Giuliano’s opening remarks highlighted some of the complex health and social issues surrounding alcohol use and laid the groundwork for a lively panel discussion.

Invited panelists included **Susan Buchbinder, MD**, director of research for the HIV Prevention Section at the San Francisco Department of Public Health and assistant clinical professor of medicine, epidemiology and biostatistics at the University of California, San Francisco (UCSF); **Michael D. Siever, PhD**, director of behavioral health services at San Francisco AIDS Foundation; and **Chris Hastings**, owner of LOOKOUT bar in San Francisco’s Castro neighborhood. The panel was moderated by **E. Maxwell Davis, PhD, MSSA**, assistant professor of human development and women’s studies at California State University, East Bay.



San Francisco AIDS Foundation CEO Neil Giuliano (second from left), with panelists Michael Siever, PhD; Susan Buchbinder, MD; Chris Hastings

The purpose of this forum was to begin a frank dialog about the intersection of alcohol use, HIV risk, and HIV health. Following is a summary of key questions and issues that emerged during the panel and audience discussion.

To put alcohol in perspective, how is it similar to and different from other drugs?

“Alcohol affects virtually every part of the body if it’s used in excess. . . . It may be similar to some drugs, but

rather than a focused or concentrated negative effect, it has a very widespread effect.”

—Susan Buchbinder

Alcohol is an intoxicant and central nervous system depressant like many other substances of abuse, but it is legal, readily available, and widely socially accepted. Like other drugs, alcohol alters the way we think about, perceive, and react to things, but as Dr. Susan Buchbinder noted, excessive alcohol use has broader effects throughout the body. Buchbinder also explained that alcohol can alter the way medications are metabolized in the body, which may reduce their effectiveness or cause unwanted side effects.

Unlike some more addictive substances, there is “a spectrum of people who are more susceptible or less susceptible to becoming addicted to [alcohol],” Buchbinder observed. “It’s not necessarily a very addictive substance, but for some people, it probably is.” Dr. Michael Siever emphasized that although not everyone who drinks becomes addicted to alcohol, it is a drug. “One of the phrases that a lot of us in the substance-abuse field use pretty frequently is ‘alcohol and other drugs,’ the emphasis on ‘other.’ . . . When you ask people what drugs they do, they generally are not going to talk about alcohol.”

And yet, Siever continued, overuse of alcohol can have consequences as deadly as any other form of substance abuse. “There are regularly stories about . . . ‘hazing’ events where people are encouraged to down a fifth of vodka in one gulp. That can kill you. So it’s a serious drug, but we don’t think of it that way.”

Buchbinder agreed. “I would say that we see many, many more diseases that are related to alcohol use, deaths related to alcohol use, and hospitalizations related to alcohol use than probably all of the other drugs put together”—most likely, she said, because more people drink alcohol than use other drugs and because alcohol affects every organ in the body

when overused. “If you’ve already got disease in an organ—the brain, the liver, the heart, the kidneys—alcohol can make that worse.”

“Frankly,” added Siever, “alcohol is much harder on your body than heroin!” Siever acknowledged research indicating the health benefits of moderate drinking, but cautioned that “it’s pretty easy to tip over into the territory where it’s really not a positive effect on your body.”

Given alcohol’s wide social acceptance, how do we define and recognize problematic alcohol use?

“Obviously, it’s about when your drinking is starting to cause problems. That’s easy to say, but the problem is we don’t always recognize when our drinking is causing problems.”

—Michael Siever

According to Siever, drinking is widely considered a cultural “norm”—a view that obscures the real range of ways people use (or don’t use) alcohol. “We tend to think either [your drinking] is fine or you’re an alcoholic, and there’s nothing in between. That’s a major problem in terms of how we think and talk about it.” Rather, there is a continuum of alcohol consumption, from total abstinence and non-problematic use to problematic overconsumption, alcohol dependence, and alcoholism.

Siever mentioned a CDC survey showing that only 50% of American adults drink regularly—although, he noted, the survey “defined a ‘regular drinker’ as someone who drinks 12 or more drinks a year, so that’s a pretty hazy definition.” To moderator Dr. E. Maxwell Davis, this definition further demonstrated how alcohol is viewed differently from other drugs: “If I tell someone that I use crack casually, they probably automatically tell me I have a problem, right? . . . There’s no level of socially acceptable use for a lot of other substances.”

Chris Hastings offered two perspectives on problematic alcohol consumption. “As a member of the community and as a friend, I would say problem drinking is something that’s going to negatively impact someone’s life; it’s going to cause them to make decisions that maybe they wouldn’t otherwise. Maybe that’s on the scale of an evening, or it could be bigger—something that’s going to affect their job or [relationships].” As the owner of a local bar, he has

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another take: A sign of problem drinking could be “someone just being loud and rude and annoying the patrons around them, or it could be something more serious so that they hurt themselves. There’s a pretty big spectrum of what could be considered a problem.” At his bar, Hastings takes these warning signs seriously: “I think it’s really important for me and my staff to recognize and see those things before they become big problems.”

Siever added that “drinking can cause problems in a lot of different ways, whether it’s physical health or mental health or becoming belligerent or unpleasant. There are also people who quietly drink and it’s not so obvious, but it’s causing problems for them also.” Continuing to do something despite the negative consequences is key to some definitions of addiction, Siever explained. “If you’re having negative consequences yet you continue to do the same thing, that’s a problem.”

Buchbinder identified specific signs of problem drinking, including driving while alcohol-impaired. Drinking among young adolescents is also problematic, she said, as is heavy alcohol use by people over age 65. Among older adults, overconsumption is “going to be a problem particularly, because they are going to be more susceptible to infections [and] to cancers.”

In a clinical setting, Buchbinder said, doctors start asking patients about their alcohol use “when we do blood work and we see a particular pattern of liver dysfunction; we know that that’s from alcohol.” She also described the “CAGE” score, a mnemonic device to remind clinicians to ask patients a series of questions about their alcohol use: Have you ever felt like you need to cut down on your drinking; have you annoyed people with your drinking; do you ever feel guilty about your drinking; and do you ever need an eye opener—that is, do you need a drink in the morning to be able to function? “If people say ‘yes’ to any of those questions, then that’s a trigger to start to ask more questions.”

How does alcohol use affect the health of people living with HIV?

“Probably the biggest issue is that when people are drinking too much, they’re not taking their meds.”

—Susan Buchbinder

Buchbinder emphasized that people with HIV don’t necessarily need to abstain from alcohol unless they have a comorbid condition, such as hepatitis C or other liver disease, that would be worsened by alcohol use. But, she continued, “HIV and alcohol act synergistically, so that there’s more brain tissue disruption. There’s a new understanding of how HIV causes disease by causing these inflammatory reactions, and alcohol also increases that.”

In addition to the risk of increased inflammation—and the resulting higher risk for neurological and cardiovascular problems—alcohol use may interfere with HIV-positive people’s ability to adhere to their antiretroviral treatment regimen. “In talking with colleagues, they say that they can get most of their patients down to an undetectable viral load, including sometimes their meth users, their crack users, their injection drug users, but not their alcoholics,” related Buchbinder. “It’s just so destructive to the rhythm of people’s days that it’s really challenging to help people to use meds effectively. If you aren’t using them effectively, you may be developing resistance, and you may be eliminating your future options.”

Alcohol use can also have negative consequences for mental health, Siever noted. Not everyone who turns to alcohol during times of stress or sadness realizes it is, in fact, a depressant. “For those of us living with HIV, depression is one of the things that we struggle with,” he explained. “Drinking, although initially or in the moment seems like it’s helping, probably isn’t helping—and in some ways it probably makes [depression] worse. That’s another way that it interacts with HIV disease.” Siever also noted that, “along with depression, isolation is a real issue for a lot of people—in general, but also for people with HIV. It’s a well-known fact that for people who have problematic drinking or other drug issues, over time, isolation tends to be a result of that.”

Drawing from her own research on HIV and alcohol, moderator Davis mentioned that heavy alcohol use can interfere with important self-care behaviors. “I remember people saying [in interviews], ‘It’s not so much what I do if I’m drinking a lot, it’s what I don’t do. I don’t go have coffee with my good friend who is supportive of me, I don’t go



Susan Buchbinder, MD

to the gym, I don't do my laundry and such. . . . I don't do the things that I need to do to live successfully with this disease, because there are times when my drinking is getting problematic.”

Buchbinder also brought up the challenges of aging with HIV in relation to alcohol. “A lot of the negative impacts of alcohol may accumulate over time, so what might not seem problematic now could be problematic later on,” she observed. As people with HIV live longer, “we might be dealing with the consequences of alcohol at a later time when it's had an opportunity to cause more disease.” Siever offered his own perspective: “For a lot of us who've been living with HIV for a long time, there's this whole history and accumulation of all the things we did when we thought we were about to die. . . . What impact did that have? What's our relationship with alcohol and other drugs now? It's a complicated trajectory over the last 30 years.”

The San Francisco Department of Public Health has identified alcohol as a driver of new HIV infections. In what ways does alcohol contribute to HIV transmission and acquisition risk?

“There's a lot of data to suggest people are not as safe when they're under the influence of alcohol. It's probably partner choice, it's probably what you're doing—it may even be how you're doing it. It's a combination of all of those things.”

—Susan Buchbinder

Buchbinder explained that the Department of Public Health defines a “driver” of HIV infection as something that is both independently related to HIV acquisition (all other things being equal, that particular factor, in this case alcohol, increases the risk of becoming HIV infected) and is common (that is, at least 10% of the population has that particular risk factor). “Alcohol meets both of those requirements,” she said.

“In terms of becoming HIV infected,” she continued, “it's probably about what you choose to do sexually” while under the influence. “It's not clear that [alcohol] is really affecting biologically what's happening to you; it's more likely that it's affecting your judgment, your sexual practices, your choice of partners at the time, those kinds of things.” Added Siever, “in the context of HIV transmission, you don't have to be an alcoholic or addicted to a drug to have done enough so that you're not thinking very carefully about what you do.”

Not surprisingly, the disinhibiting effect of alcohol contributes to its role in HIV transmission and acquisition: “We tend to be disinhibited and not think about the consequences of our actions or take responsibility for our actions when we're a little toasted,” Siever remarked. “And in this culture, it's also sort of an absolution—like ‘Oh, I was drunk’ is going to absolve you of any responsibility for what you do. I think there are lots of complications about how we think about drinking that make it really problematic in terms of public health.”

Also, Buchbinder noted, if heavy alcohol use prevents people from taking their antiretroviral regimens effectively, there can be potential consequences for both their own health and that of their sex partners. Current research indicates that HIV treatment doubles as HIV prevention by reducing viral load: Less virus in the body means lower likelihood of passing it on through unprotected sex.

Indeed, getting HIV-positive people into medical care and on appropriate treatment is now considered a public health strategy for HIV prevention. “Alcohol probably is the leading risk factor for lack of adherence,” said Buchbinder, “and that will fuel the epidemic—and, more unfortunately, yield an epidemic that has a lot of resistant HIV so that people who are getting newly infected don't have treatment options either.” To combat this problem, she suggested developing better systems of support for people who are struggling with alcohol and medication adherence. “People should be able to choose whether or not they go on meds,” she stated, “but if they've chosen to go on meds, then we want to be sure we have those support structures in place.”

Even after discussing the potential dangers of drinking in the context of HIV health and HIV risk, the panelists agreed that alcohol and bars have an important function in San Francisco. Said Siever, “I'm old enough to remember when gay bars were really the only place you could go to meet other gay people.” Buchbinder added, “that's the challenge of alcohol, because a little bit of it may be a good thing for some people, right? We don't want to shut down people's social interaction.” Hastings agreed, noting that bars have offered “a place where people could come and feel safe when there weren't other places to go. For a very long time, that was built into what it means to be a part of our community.” And, he continued, “it's really important for bars to still take on that role. That's something I try really hard to have LOOKOUT do: really be a part of the fabric of the community that we're in.”

Can we create effective interventions without addressing the complex relationships between problematic alcohol use and other psychosocial factors like HIV stigma, homophobia, and lack of social support?

"In interviews, folks would tell me, 'In my family, in my world, on my block, it is so totally unacceptable to be gay, it's totally unacceptable for me to have HIV—so frankly, I'd rather they think I've become an alcoholic.'"

—E. Maxwell Davis



Panel Moderator
E. Maxwell Davis, PhD, MSSA

Like HIV infection, alcohol use and abuse occur in a social context and are driven by a wide range of psychosocial factors, including homophobia and stigma. Siever explained that unease with sexuality and sexual relationships can increase the appeal of using alcohol before engaging with potential partners. "We all think we're very liberated," he joked, "but we all struggle with that stuff." He recalled a conversation with a group of gay men coping with substance-use issues: "I said, 'How many of you have ever had sex with anyone not under the influence of anything—stone-cold sober?' And not one of them ever had."

Buchbinder added, "it's really clear that the epidemic is driven by a number of upstream issues—stigma, homophobia, poverty, all kinds of things. We definitely do need to address those...but I don't think those are going to be simple solutions." Siever suggested harm reduction, a counseling and treatment model that addresses the negative consequences of substance use without requiring a commitment to abstinence from alcohol or other drugs. "Even if you have a problem in terms of your alcohol consumption," said Siever, "abstinence isn't necessarily the only answer."

Stigma around alcohol dependence can prevent people from seeking help, he added: "I think there's a reluctance to talk very honestly about some of these issues for fear of being labeled as an alcoholic." Siever highlighted The Stonewall Project, a family of counseling, treatment, and support programs (and part of San Francisco AIDS Foundation) that offers "services people can access regardless of where they're at with their alcohol use and to what extent they think they do or don't have a problem with drinking." He explained, "you don't have to have already decided or know that you've got a problem to be able to come and talk with someone."

Hastings offered a different take on the psychosocial factors implicated in alcohol use and its interaction with HIV. "I feel like it is possible to address those issues, but I don't feel like it's necessary," he said. Rather, "we should be looking at [having] an impact on decision-making, and the point at which people are making those poor decisions. I feel like that's a simpler approach to take rather than trying to dissect how complicated and how intertwined alcohol is into our culture, especially in the gay community." Hastings' is one of a handful of bars in the Castro and South of Market area participating in the PACE study, short for "Pacing Alcohol Consumption Experiment," conducted by UCSF and Stop AIDS Project (part of San Francisco AIDS Foundation). Patrons exiting bars opt to take a five-minute survey and use a breathalyzer to gauge their blood alcohol level, and can complete a follow-up online survey about what they did after leaving the bar. The researchers hope to shed light on patterns of alcohol use and related activities, as well as community norms around drinking.

What strengths can we capitalize on in order to address the interaction of problematic alcohol use and HIV/AIDS in our community?

"I think the biggest strength that I've seen in the community since I've taken over the business is how people band together . . . and how strongly we support each other."

—Chris Hastings

The discussion ended on a forward-looking note as the panelists turned to the strengths our community can draw on to deal with challenges around alcohol and HIV. Hastings called for greater community awareness of the role of alcohol in San Francisco's HIV epidemic. "Unfortunately, people don't at this time see us in being in a crisis mode with this," he said. In a similar vein, Buchbinder recalled the early AIDS crisis in San Francisco, when people took care of those in need and educated and supported each other in preventing the spread of the disease. "Nothing

that we've ever done to try to prevent HIV even comes close to what the community did to reduce the rates of infection of HIV," she said. "I don't think we could ever hope for a vaccine that would be as effective as the community was." (She was quick to add, "Hopefully we'll get a vaccine!")

Buchbinder also highlighted a need for "expanding that community so that it isn't just necessarily geographically limited to the Castro." HIV and alcohol collide in other San Francisco neighborhoods hard-hit by the epidemic; for example, as observed by one audience member, a self-described AIDS survivor, "where I stay, in the Tenderloin, we have four liquor stores to every block."

To Siever, the word "community" is sometimes overused: "I've often complained about how easily we use the word 'community' and go around as if it means something, and it doesn't always." But, he continued, "part of the meaning of that word to me is that . . . we do take care of each other and look out for each other. I think that does happen a lot, and that is one of our strengths, but it doesn't always happen." He emphasized the role of individuals: "If one of our friends is drinking too much, . . . it's part of being a community and part of being a friend to say something to them." Concluded Siever, "we're all in this together."



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RECREATIONAL DRUGS AND HIV

HOW DOES RECREATIONAL DRUG USE AFFECT HIV?

Recreational drug use can make people more likely to be infected by HIV. Also, for people taking antiretroviral medications (ARVs) to fight HIV, there can be some serious interactions between drugs and ARVs. These interactions can lead to under- or overdoses of ARVs or recreational drugs. Some of these may be fatal.

DRUGS AND GETTING INFECTED WITH HIV

Using alcohol or drugs before or during sexual activity greatly increases the chances that you will not follow safer sex guidelines (see fact sheet 151.) You may have more fun while you're partying, but you're more likely to have sex. If you do, you probably won't be thinking about safer sex guidelines to reduce your chances of getting HIV or other sexually transmitted diseases. If you swap drugs for sex, the risks increase.

If you are feeling the effects of using drugs, you might wonder if you have HIV infection. Some of the signs and symptoms overlap. Be sure that your doctor knows about all of the reasons why you might be feeling bad.

DRUG USE AND HIV DISEASE

There is very little research on drug use and HIV disease progression. However, it's clear that if you party a lot, you may not be taking care of your physical health. Getting enough sleep and eating regular meals can help you stay healthy. Drug use can make you choose not to sleep and can reduce your appetite. If you do this, your body and immune system can become weaker. This can make it easier for you to feel the side effects of ARVs, or even to get the infections that take advantage of a weaker immune system (opportunistic infections, see fact sheet 500.)

A serious risk for people with HIV who are still actively using drugs is that they will miss doses of their ARVs. This can lead to HIV resistance (see fact sheet 126), where HIV changes (mutates) so that the ARVs you are taking can stop working.

DRUG INTERACTIONS

Another major risk for people with HIV who use drugs is that the drugs they use will

interact with their ARVs. These interactions can increase or decrease the levels of ARVs or of recreational drugs. In the worst case, ARVs may stop working because there's not enough of them in your body. Also, the drug interactions can cause a serious, possibly fatal increase in the level of recreational drugs.

There is virtually no careful research on interactions between ARVs and recreational drugs. The use of recreational drugs is illegal and pharmaceutical companies cannot provide them to people with HIV, even to study the effects. This means that information on drug interactions with ARVs is based on laboratory studies of the recreational drugs or what is already known about how the drugs are broken down (metabolized) in the body.

Most ARVs are processed by the liver. All protease inhibitors use this pathway. The levels of recreational drugs metabolized in the liver can be changed significantly.

Alcohol

Alcohol can increase blood levels of abacavir (Ziagen, fact sheet 416) and amprenavir (Agenerase, fact sheet 445). Chronic alcohol use can lower levels of many ARVs. May increase the risk of pancreatitis when used with didanosine (ddI, Videx, fact sheet 413.)

Cocaine

Interactions between cocaine and ARVs are mostly theoretical and are unlikely to increase cocaine toxicity.

Crystal meth, methamphetamine (also called crank, glass, tina, and many other names). A recent study found that gay men who use crystal meth have 5 times the risk of HIV infection as non-users. This drug uses the same liver pathway as protease inhibitors. Serious interactions are highly likely. When used with ritonavir (Norvir, fact sheet 442) it increases amphetamine levels 2 – 3 times)

Ecstasy/MDMA

Ecstasy uses the same liver pathway as protease inhibitors. This can cause very high levels of ecstasy in the body of people taking protease inhibitors. There is one documented case report of a death due to an interaction between ecstasy and ritonavir. It can also increase the risk of kidney stones with indinavir (Crixivan, fact sheet 441) due to dehydration.

GHB (Xyrem, "date rape drug") is normally eliminated from the body by the lungs (through breathing). However, protease inhibitors might increase GHB levels. Interactions with non-nucleoside reverse transcriptase inhibitors (delavirdine, Rescriptor, fact sheet 433; nevirapine, Viramune, fact sheet 431, and efavirenz, Sustiva, fact sheet 432) are unknown.

Ketamine (K, Special K)

This drug is primarily metabolized by the liver. There are no case reports or studies of interactions with ARVs. However, ritonavir (Norvir), nelfinavir (Viracept, fact sheet 444) and efavirenz (Sustiva) may cause high levels of ketamine. This could cause hepatitis.

LSD

The metabolism of LSD is not understood. Interactions with ARVs are possible but unknown.

Marijuana (see fact sheet 731)

There are no known interactions between marijuana and ARVs. Theoretically, interactions may be greater if marijuana is eaten rather than smoked.

THE BOTTOM LINE

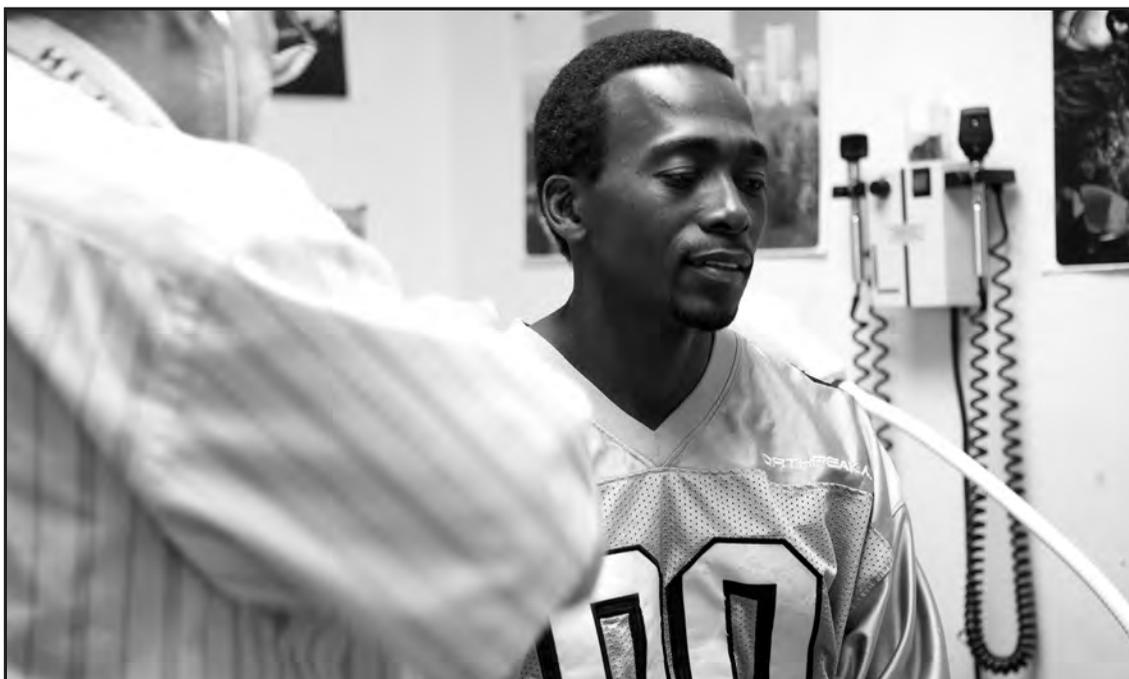
Many recreational drugs interact with ARVs. The information on these interactions is incomplete and difficult to find. Interactions can be dangerous or fatal.

FOR MORE INFORMATION

National AIDS Education and Training Resource Center at http://www.aids-ed.org/pdf/tools/nynj_rec_drug_interactions.pdf

Interactions Between Recreational Drugs and Antiretroviral Agents by Tony Antoniou and Alice Lin-in Tseng, published in *The Annals of Pharmacotherapy* 2002, pages 1598-1613

Reviewed December 19, 2011



Opioid Dependence

MAT and Primary Care

MAT and Alcohol

Pain Management

MEDICATION-ASSISTED ADDICTION TREATMENT

We can't just tell people to stop using drugs... We need to offer them more. As soon as buprenorphine became available, we got certified so that people could get all their care and medications in one place.

—Lynn E. Taylor, HIV/hepatitis C coinfection clinic
Miriam Hospital, Rhode Island

The American Society of Addiction Medicine defines addiction as a primary, chronic disease of brain reward, motivation, memory, and related circuitry. The American Psychiatric Association classifies substance dependence and substance abuse as substance use disorders (SUDs).¹

SUDs are caused by biological, genetic, psychological, and environmental factors. People may try drugs out of curiosity; from peer pressure; or to help them stay awake to work or study. Drugs and alcohol make people feel good; as a result, people sometimes use them to manage stress, anxiety, and depression (a phenomenon known as self-medication).

Researchers who study images of the human brain report that long-term drug use causes changes in its structure, function, and metabolism; some of the changes persist long after drug use has ceased.^{2,3}

DID YOU KNOW?

Dopamine is a neurotransmitter (brain chemical) involved with learning, motivation, pleasure, and reward. Illicit drugs change both the amount and the sensitivity of dopamine receptors. When drug use increases dopamine levels, people feel euphoric; when dopamine levels decrease after drug use, people are driven to using more drugs to restore them.



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 **DIRECTOR'S LETTER**

Addressing co-occurring conditions such as HIV and substance use demands the kind of comprehensive, holistic approach that has long been a hallmark of the Ryan White HIV/AIDS Program. From peer advocates and stakeholders, community partners and outreach workers, we have learned not only to screen patients for substance abuse issues but also to assess whether they are ready for treatment and which therapy is best for them.

As best practices evolve and new treatment modalities become available, we continue to investigate and disseminate this information. Efforts encompass a recent Special Projects of National Significance Program on buprenorphine and the inclusion of outpatient substance abuse treatment services as a core medical service. In this issue of *HRSA CARE Action*, we describe what medication-assisted addiction therapies exist for your patients. We share this information in an effort to help you do what you do best—improve the health of people living with HIV/AIDS.

Deborah Parham Hopson
HRSA Associate Administrator for HIV/AIDS

HRSA CARE Action

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Photographs

Cover: A Denver, CO HIV client receives an array of health care and support services from Ryan White HIV/AIDS Program providers, including primary care and substance abuse treatment.

Additional copies are available from the HRSA Information Center, 888.ASK.HRSA, and may be downloaded at www.hab.hrsa.gov.

This publication lists non-Federal resources to provide additional information to consumers. The views and content in those resources have not been formally approved by the U.S. Department of Health and Human Services (HHS). Listing of the resources is not an endorsement by HHS or its components.

HIV AND CO-OCCURRING PSYCHIATRIC AND SUBSTANCE USE DISORDERS

HIV, mental illness, and SUDs overlap. More than one-third of all AIDS cases in the United States are linked directly—or indirectly—to drug use.⁴ More than 60 percent of HIV-positive people experience at least one mental illness after diagnosis, and many struggle with co-occurring SUDs.⁵⁻⁸

High prevalence of co-occurring conditions among HIV-positive patients requires a coordinated system of care. The Ryan White HIV/AIDS Program community has long recognized the importance of comprehensive care for people living with HIV/AIDS (PLWHA), including primary along with mental health care and treatment for SUDs. Funds from Parts A-D of the Ryan White HIV/AIDS Program can be used for inpatient and outpatient substance abuse treatment, the latter being a core medical service. Part F supports the development of new delivery models for HIV care and treatment, including the Special Projects of National Significance Program (see <http://hab.hrsa.gov/law/1002.htm>).

MEDICATION-ASSISTED TREATMENT FOR OPIOID DEPENDENCE

Medication-assisted treatment (MAT) is a holistic, individualized approach to SUD treatment that combines pharmacotherapy with counseling and behavioral therapy. There are no U.S. Food and Drug Administration (FDA) approved pharmacologic treatments for cocaine or methamphetamine dependence. Although there are FDA-approved pharmacologic treatments for alcohol dependence (described later in this article), the primary focus of MAT in HIV research, care, and treatment has been on opioid dependence. Research has demonstrated that MAT reduces illicit opiate use, increases engagement in HIV care and treatment, improves adherence to antiretroviral therapy (ART), and enhances HIV treatment outcomes.⁹⁻¹³ Methadone, buprenorphine, and vivitrol (an extended-release, injectable form of naltrexone) are FDA-approved for treatment of opioid dependence. “Buprenorphine is facilitating highly active antiretroviral therapy; it stabilizes patients, and we see their HIV RNA decline and their CD4 cell count rise,” says Lynn E. Taylor, a physician at

the HIV/hepatitis C coinfection clinic at the Miriam Hospital in Providence, Rhode Island.

Methadone

Methadone is a synthetic opiate that has been used for more than 30 years to treat opioid dependence. Methadone is a full opioid agonist, which means that it binds to and activates opioid receptors. Low-dose methadone (30–60 mg/day) stops withdrawal symptoms. Higher doses (80–120 mg/day) also reduce drug cravings and discourage opiate use by preventing people from feeling the effects of opiates.

Methadone is taken orally, once daily. Methadone overdose is possible, particularly when it is combined with antidepressants, alcohol, or cocaine.

Methadone has significant drug–drug interactions with some antiretroviral agents (see insert, Table 1). It interacts with several psychiatric medications, including amitriptyline (Elavil), fluvoxamine (Luvox), desipramine (Norpramin), risperidone (Risperdal), quetiapine (Seroquel), carbamazepine (Tegretol), diazepam (Valium), and midazolam (Versed).¹⁴ Methadone is available through opioid treatment programs regulated by the Substance Abuse and Mental Health Services Administration (SAMHSA) Center for Substance Abuse Treatment.

Buprenorphine

Buprenorphine is a semisynthetic opioid that prevents withdrawal symptoms. Because it is a partial opioid agonist, buprenorphine does not stimulate the same degree of activity at the brain's opioid receptors as full opioid agonists do (e.g., heroin, morphine, oxycontin, fentanyl, and methadone). As a result, people using buprenorphine may still experience euphoria and become physically dependent, but to a lesser extent than occurs with full agonists. Buprenorphine reduces drug cravings and prevents people from feeling the effects of opiates by first knocking them off the brain's opioid receptors and then tightly binding to and blocking the receptors.

In 2002, the FDA approved two forms of buprenorphine to treat opioid dependence: Subutex (a white, oval-shaped tablet that contains only buprenorphine) and Suboxone (an orange, hexagonal pill containing four parts buprenorphine to one part naloxone). Naloxone is an opioid antagonist; it binds to and blocks opioid receptors. Suboxone was created to discourage buprenorphine diversion, because buprenorphine can produce a “high” when people not dependent on opioids inject it.

Naloxone causes withdrawal symptoms when injected but not when taken orally.

Buprenorphine reaches its full effect (known as the “ceiling effect”) at 16 to 32 mg. Overdose is less likely with buprenorphine than with full opioid agonists, but it can occur when buprenorphine is used with large amounts of alcohol or benzodiazepines (i.e., medications such as diazepam, which are used to treat insomnia, anxiety, or seizures). Physicians need to evaluate coadministration of buprenorphine and benzodiazepines.

Buprenorphine has fewer drug–drug interactions with antiretroviral agents than does methadone (see Table 1). Interactions between buprenorphine and psychiatric medications have not been studied in humans, except for citalopram (Celexa) and sertraline (Zoloft); neither drug has clinically significant interactions with buprenorphine.¹⁴

Doctors can obtain a waiver allowing them to prescribe buprenorphine. The Drug Addiction Treatment Act of 2000 (DATA 2000) waiver allows primary care physicians to treat 30 patients (see “Online Resources,” p. 7). After a year, approved prescribers can apply for an exemption to treat up to 100 patients. SAMHSA estimates that 19,000 physicians are certified to prescribe buprenorphine in the United States. DATA 2000 waivers allow SUD treatment to become integrated into HIV primary care.

MAT AND HIV PRIMARY CARE

MAT with buprenorphine is an important option for patients who want to stop opioid use without making daily visits to a methadone clinic or going to a drug treatment program. Some people may not be comfortable disclosing their HIV status during drug treatment, or they may require medical or mental health care that is not always

BUPRENORPHINE INITIATIVE

The Ryan White Special Projects of National Significance (SPNS) Program has funded the Buprenorphine Initiative to assess feasibility and effectiveness of integrating buprenorphine treatment for opioid abuse into HIV primary care settings at 10 demonstration sites. HRSA will be releasing a monograph of findings from the Buprenorphine Initiative in Summer 2011. To learn more about the project, visit: http://hab.hrsa.gov/special/bup_index.htm.

available through drug treatment programs. PLWHA who are lesbian, gay, bisexual, or transgender (LGBT) may prefer being treated for opiate dependence at their HIV clinic, because less than 10 percent of drug treatment facilities offer programming for LGBT clients, and counselors often lack formal training on LGBT-specific issues.^{15,16}

When MAT is integrated into HIV primary care settings, “Buprenorphine can be picked up along with HIV and psychiatric medications, so the patient has control. This is important, because so many patients lose control of housing and other things in their lives,” says Jeff Watts, the psychiatric medical director at Chicago’s CORE Center. “Our patients are required to go to 12-step meetings or meetings in our clinic, where we have harm reduction meetings, individual therapy, and intensive 28- or 60-day outpatient treatment programs,” he adds. “We had a group of people on MAT; it was a great advertisement. The group helped us to recruit more patients, and we were able to work on HIV adherence, nutrition, and other issues.”

Research supports integrating MAT into HIV primary care. A recent study funded by the Health Resources and Services Administration compared outcomes among 93 HIV-positive, opioid-dependent patients, who were assigned either to clinic-based buprenorphine and individual counseling or to case management with referral to drug treatment. People in the buprenorphine group were significantly more likely to participate in treatment for opiate dependence (74 percent vs. 41 percent), less likely to use opioids and cocaine, and more likely to attend their HIV primary care visits than were people in the group referred to drug treatment.¹⁷ In another study, 16 HIV-positive patients were given buprenorphine and counseling along with clinical care; their HIV RNA (viral load) and opioid use decreased significantly.¹⁸

INCORPORATING MAT: OFFICE-BASED CARE

Buprenorphine precipitates acute withdrawal if opioids are in the bloodstream; they should be discontinued 12-24 hours before buprenorphine initiation. Buprenorphine is then administered during early withdrawal, under medical supervision (a process known as induction). “We induce patients in the office as part of care for the whole person,” says Taylor. Taylor’s colleague, Cindy MacLeod, Miriam Hospital’s AIDS and addictions–certified nursing clinical coordinator, plans inductions in advance. She says,

I take a complete history: their drug use, what kind of treatment they have tried—including past experience with

buprenorphine—and what they are willing to do. I explain to patients that buprenorphine can cause sudden and intense withdrawal in people who have used recently. With short-acting opioids (like heroin and Vicodin), people can take their last dose at midnight and come in the next day, but they need to wait 2 or 3 days if they are using longer-acting opioids (like methadone and fentanyl) or if they have serious liver damage, because drugs take longer to leave their system.

MacLeod stays in close contact with patients beforehand. “I treat inductions like going into labor—‘How far has your withdrawal progressed?’”

MacLeod uses a short, standardized questionnaire to assess patients before inductions and keeps an eye on people for 1 to 2 hours afterward. “Within 30 minutes, people go from being very anxious, sweating, and having diarrhea to feeling normal. Patients have said that they forget what feeling normal is like,” she says. Watts adds, “It is amazing to see how bad patients look when they come in—and how a little pill can abate their symptoms but not knock them out like methadone or heroin.”

Buprenorphine is not a magic bullet, however. “Addiction is not fixed just by picking up methadone or buprenorphine,” says Watts. “People need counseling and 12-step programs. Some people may start using cocaine or methamphetamine. The natural course of addiction and mental illness is relapse; it is rare to lick it on the first go.” MacLeod agrees. “Patients and providers think that this is going to be a quick fix—just take a pill—but recovery is work. Some people who are doing well on buprenorphine may need help with their cocaine and alcohol use. Our patients have been using drugs for decades, and polypharmacy is the signature of our population. Start looking at all of your patients and getting into conversations with them about drug use.”

METHADONE OR BUPRENORPHINE?

It is important for patients to have the option of both buprenorphine and methadone. “Buprenorphine hasn’t caught on yet [at the CORE Center]—but it has changed so many patient’s lives that we wanted to offer it. We also have patients [who] aren’t doing well with buprenorphine, so we refer them to the methadone clinic,” says Watts.

Some of Taylor’s patients prefer buprenorphine. “Some individuals cycle in and out of correctional facilities, unfortunately often due to addiction, and are scared of methadone withdrawal. Boom, they end up in jail and are immediately taken off of methadone. Withdrawal

➔ *“Some people prefer to receive treatment in the privacy of their doctor’s office rather than running into people they used to do drugs with at a methadone clinic.”*

from buprenorphine is not as bad,” she says. Taylor adds, “Some patients prefer to receive treatment in the privacy of their doctor’s office rather than running into people they used to do drugs with at a methadone clinic.”

According to Sharon Stancliff, medical director at the Harm Reduction Coalition in New York City, “There is no way to predict who will do better on methadone than buprenorphine—older predictors have not borne out (such as higher doses of methadone are better for people with heavier heroin habits).” Alexander Tellez, the administrative assistant at the Tarzana Treatment Center in California, adds, “There may be more than one way for someone to get sober . . . people need to see that there is not just one option for them.”

MAT AND PREGNANCY

The benefits of MAT during pregnancy significantly outweigh the risks. In the United States, methadone is the standard of care for pregnant women, although buprenorphine is an acceptable alternative.¹⁹ Infants born to women using methadone or buprenorphine are at risk for neonatal abstinence syndrome (NAS), but occurrence and severity of NAS are not associated with dosing of methadone or buprenorphine during pregnancy.²⁰

MAT AND ALCOHOL

Alcohol use is common among people with HIV. A national sample of almost 3,000 PLWHA reported that 15 percent were heavy drinkers, a rate close to twice that of the general population.²¹ Alcohol accelerates progression of hepatitis C, a common coinfection among people with HIV (especially current and former drug users). Alcohol also has an impact on HIV disease: Heavy drinking has been linked with poor adherence to antiretroviral therapy.^{22,23} A recent study found that daily consumption of two or more drinks was associated with HIV disease progression, even with use of antiretroviral therapy.²⁴

Fortunately, clinicians have two relatively new types of pharmacotherapy to offer patients who are alcohol dependent: naltrexone and vivitrol. “We have been using vivitrol for alcohol dependence . . . it’s not for everyone, but it reduces cravings to drink,” says Tom Martinez, the director of community programs and services at Tarzana Treatment Center.

Naltrexone

Naltrexone is an opioid antagonist. Opioid antagonists form a tighter bond with opioid receptors than do opioid agonists. Instead of activating opioid receptors, antagonists block them, so people do not feel the effects of opiates (and alcohol). Naltrexone’s exact mechanism of action is not known; it may inhibit pleasure from alcohol intake, possibly by working through the brain’s mesolimbic pathway (an area involved with craving for and enjoyment of alcohol).²⁵

Vivitrol

Vivitrol is an extended-release, injectable naltrexone formulation that is given every 30 days. In 2006, FDA approved it (when used in conjunction with psychosocial support) for treatment of alcohol dependence for people who have already stopped drinking. Studies have found that naltrexone is more effective at reducing the risk of relapse to heavy drinking than for assisting with abstinence from alcohol.²⁶

Vivitrol injections are increasingly being used to treat opioid dependence. In October 2010, FDA approved vivitrol for treatment of opioid dependence (after detoxification is completed). Because naltrexone is an opioid antagonist, vivitrol can cause or worsen opioid withdrawal symptoms, and it complicates management of acute and chronic pain. If opioid pain medication is necessary, patients must be closely and carefully monitored. High-dose vivitrol can cause serious liver damage; risks and benefits must be carefully considered in people with serious liver disease.

ADDITIONAL PHARMACOTHERAPY FOR ALCOHOL DEPENDENCE

Although they have not been studied in people with HIV, acamprosate calcium (Campral) and disulfiram (Antabuse) are FDA approved for treating alcohol dependence.

Acamprosate Calcium

Acamprosate calcium (Campral), when taken in combination with psychosocial support, was approved by the FDA in 2004 to treat alcohol dependence in people who have already stopped drinking. Placebo-controlled studies have reported that duration of abstinence was

 **TABLE 2. STATE AIDS DRUG ASSISTANCE PROGRAM COVERAGE: METHADONE and BUPRENORPHINE**

| STATE | COVERAGE | | |
|----------------|-----------|---------------|------|
| | Methadone | Buprenorphine | Both |
| California | X | | |
| Maryland | | X | |
| Massachusetts | | | X |
| Missouri | X | | |
| New Hampshire | | | X |
| New Jersey | | | X |
| New York | X | | |
| Washington, DC | | X | |

Source: Britten Pund, Senior Associate, Care and Treatment, National Alliance of State and Territorial AIDS Directors.

significantly longer among people who received acamprosate than among people who received placebo.²⁷

Although the mechanism of action is not fully understood, experts speculate that acamprosate may reduce alcohol craving by balancing neurotransmitters that are disrupted by alcohol dependence. Acamprosate tablets are taken 3 times daily, making adherence challenging, particularly for people taking additional medications with different dosing schedules.

Acamprosate may worsen depression, and it is not recommended for people with kidney disease. No information is available about drug–drug interactions between acamprosate and antiretroviral agents.

Disulfiram

Disulfiram blocks alcohol metabolism, thereby causing rapid accumulation of alcohol metabolites to levels up to 10 times above normal. It induces a severe, unpleasant reaction (including headache, nausea, vomiting, thirst, and vertigo) within moments of alcohol consumption. This reaction usually lasts from 30 to 60 minutes, but it may linger for as long as alcohol remains in the bloodstream. Disulfiram also increases and maintains dopamine levels in the brain.

Disulfiram is taken once daily, but it stays active in the body for up to 14 days after discontinuation. People with serious liver disease cannot use disulfiram. It cannot be used with liquid and capsule formulations of ritonavir—liquid lopinavir/ritonavir (Kaletra) and tipranivir (Aptivus)—because they contain alcohol. The oral solution of amprenavir should not be used with disulfiram, because it contains propylene glycol (which is also used in antifreeze). Products containing alcohol, such as perfume and cologne, should be used cautiously, because they may cause a reaction in people using disulfiram.

An ongoing clinical trial is evaluating potential drug–drug interactions between disulfiram and efavirenz, atazanavir, and ritonavir; no additional information is available on drug–drug interactions between disulfiram and other antiretroviral agents.

MAT AND CHRONIC PAIN

People are suffering from their pain as well as their addictions. We have to thoroughly evaluate the pain; try to find the cause; and tease apart pain, addiction, and suffering, instead of just writing a prescription.

— Lynn E. Taylor

Chronic pain is common among PLWHA. It is even more prevalent—and worse—in people with co-occurring psychiatric and substance use disorders.²⁸ Opiate and cocaine use complicate pain management because they lower pain tolerance.²⁹ No treatment guidelines exist for pain management in people with opioid dependence, and provider strategies vary widely.³⁰

MAT also may increase pain sensitivity and opioid tolerance, so it complicates management of acute and chronic pain.^{31,32} “Buprenorphine is not a great analgesic. It is not nearly as strong as fentanyl or oxycontin; patients need some other form of painkillers, usually nonsteroidal anti-inflammatory drugs,” says Watts. Administering methadone or buprenorphine every 24 to 48 hours prevents withdrawal and reduces drug cravings but is not sufficient for pain control, because the analgesic effects of the drugs wear off after 4 to 8 hours.³³ One study of HIV-positive methadone patients (who were also being treated at a pain clinic) reported that increasing the dose of methadone significantly lowered pain without adverse events over a 12-month period, but the authors recommended further studies.³⁴

Pain is often undertreated, particularly in people with a history of SUD. A recent study of prescription opiate use and diversion among street drug users in New York City reported that most of the drugs were used for pain management and to prevent withdrawal symptoms; less than 40 percent of users sold opioids that were prescribed to them.³⁵ “There’s a difference between someone who is drug dependent versus an entrepreneur,” says Sharon Stancliff, medical director at the Harm Reduction Coalition. She offers a few tips to clinicians to minimize drug diversion:

- ▶ Don’t leave your prescription pad lying around.
- ▶ Prescribe generics, because brand-name medications have higher street value than generics.
- ▶ Because sealed bottles of medication have a higher street value, prescribe an odd number of pills so that they are repackaged.

ACCESS TO MAT

The increased need for AIDS Drug Assistance Programs and funding shortfalls have limited coverage of MAT to only a handful of States (Table 2).

Ryan White HIV/AIDS Program funding can be used to cover methadone (policies vary by area); yet industry-funded patient assistance programs (PAPs) do not exist for this medication. A PAP exists for Suboxone, which is made by Reckitt Benckiser; for information, visit www.patientassistance.com/profile/reckittbenckiser-314/. PAPs may also provide access to MAT for alcohol dependence. Information on access to vivtrol and acamprosate is available at www.patientassistance.com.

MOVING FORWARD

HIV care and treatment have evolved greatly over the past 25 years to include the introduction of effective and tolerable antiretroviral agents and sophisticated tests that indicate which drugs are likely to work for individual patients.

In the future, clinicians may also have more pharmacotherapeutic options to offer drug- and alcohol-dependent patients, as new strategies for and approaches to MAT are evaluated. For example, research on disulfiram, bupropion, and dexamphetamine shows promise for treating cocaine dependence.³⁶⁻⁴⁰

Many patients, however, continue to struggle with addiction and do not fully realize the benefits of pharmacologic advances. MAT allows HIV clinicians to treat

Buprenorphine

Making Opioid Treatment a Primary Concern:
www.careacttarget.org/library/SPNSBulletin/spnsbulletin.mar08.pdf

Substance Abuse Suboxone Treatment Program:

www.careacttarget.org/2010_rw_grantee_meeting/papers/F-15.pdf

Information on Drugs of Abuse

www.nida.nih.gov/drugpages/

State Drug Treatment Programs

<http://findtreatment.samhsa.gov/>

Treatment Improvement Protocols

www.ncbi.nlm.nih.gov/bookshelf/br.fcgi?book=hssamhsatip

Buprenorphine Physician/Treatment Locator

http://buprenorphine.samhsa.gov/bwns_locator/

Physician Clinical Support System

www.pcssmentor.org/

Obtaining a Buprenorphine Waiver

http://buprenorphine.samhsa.gov/waiver_qualifications.html

National Alliance of Advocates for Buprenorphine Treatment

www.naabt.org/

State Methadone Programs

<http://dpt2.samhsa.gov/treatment/directory.aspx>

Screening Tools

www.hivguidelines.org/resource-materials/screening-tools/substance-use-screening-tools/

www.drugabuse.gov/nidamed/screening/

www.drugabuse.gov/nidamed/quickref/screening_qr.pdf

Acute Pain Management for People on MAT for Opioid Dependence

www.ncbi.nlm.nih.gov/pmc/articles/PMC1892816/?tool=pubmed

patients *for* SUDs instead of treating patients *with* SUDs. “HIV and viral hepatitis are infectious consequences of addiction. We cannot provide care without working on addiction, too,” says Taylor.

 REFERENCES

This newsletter was heavily informed by collaboration and interviews with the following experts: Frederick L. Altice, Ken Bachrach, Valerie A. Gruber, Cindy MacLeod, Tom Martinez, Jeffrey Samet, Jim Sorg, Sharon Stancliff, Lynn E. Taylor, Alexander Tellez, and Jeff Watts.

- ¹ American Psychiatric Association. *Diagnostic and statistical manual of mental disorders*. Fourth edition, text revision. Washington, DC: American Psychiatric Association, 2000.
- ² Fowler JS, Volkow ND, Kassed CA, et al. Imaging the addicted human brain. *Sci Pract Perspect*. 2007;3(2):4-16.
- ³ McCann UD, Kuwabara H, Kumar A, et al. Persistent cognitive and dopamine transporter deficits in abstinent methamphetamine users. *Synapse*. 2008;62:91-100.
- ⁴ Centers for Disease Control and Prevention. *Drug-associated HIV transmission continues in the United States*. 2002. Available at: www.cdc.gov/hiv/resources/factsheets/idu.htm. Accessed June 2, 2010.
- ⁵ Chander G, Himelhoch S, Moore RD. Substance abuse and psychiatric disorders in HIV-positive patients: epidemiology and impact on antiretroviral therapy. *Drugs*. 2006;66:769-89.
- ⁶ Cruess DG, Evans DL, Repetto MJ, et al. Prevalence, diagnosis, and pharmacological treatment of mood disorders in HIV disease. *Biol Psychiatry*. 2003;54:307-16.
- ⁷ Kopnisky KL, Bao J, Lin YW. Neurobiology of HIV, psychiatric and substance abuse comorbidity research: workshop report. *Brain Behav Immun*. 2007;21:428-41.
- ⁸ Pence BW, Miller WC, Whetten K, et al. Prevalence of DSM-IV-defined mood, anxiety, and substance use disorders in an HIV clinic in the South-eastern United States. *J Acquir Immune Defic Syndr*. 2006;42:298-306.
- ⁹ Altice FL, Maru DS, Bruce RD, et al. Superiority of directly administered antiretroviral therapy over self-administered therapy among HIV-infected drug users: a prospective, randomized, controlled trial. *Clin Infect Dis*. 2007;45:770-8.
- ¹⁰ Lucas GM, Mullen BA, Weidle PJ, et al. Directly administered antiretroviral therapy in methadone clinics is associated with improved HIV treatment outcomes, compared with outcomes among concurrent comparison groups. *Clin Infect Dis*. 2006;42:1628-3.
- ¹¹ Palepu A, Tyndall MW, Joy R, et al. Antiretroviral adherence and HIV treatment outcomes among HIV/HCV co-infected injection drug users: the role of methadone maintenance therapy. *Drug Alcohol Depend*. 2006;84:188-94.
- ¹² Roux P, Carrieri MP, Villes V, et al; MANIF2000 cohort study group. The impact of methadone or buprenorphine treatment and ongoing injection on highly active antiretroviral therapy (HAART) adherence: evidence from the MANIF2000 cohort study. *Addiction*. 2008;103:1828-36.
- ¹³ Simoons S, Matheson C, Bond C, et al. The effectiveness of community maintenance with methadone or buprenorphine for treating opiate dependence. *Br J Gen Pract*. 2005;55(511):139-46.
- ¹⁴ Altice FL, Kamarulzaman A, Soriano VV, et al. Treatment of medical, psychiatric and substance-use comorbidities in people infected with HIV who use drugs. *Lancet*. 2010;376(9738):367-8.
- ¹⁵ Cochran BN, Peavy KM, Robohm JS. Do specialized services exist for LGBT individuals seeking treatment for substance misuse? A study of available treatment programs. *Subst Use Misuse*. 2007;42:161-76.
- ¹⁶ Eliason MJ, Hughes T. Treatment counselor's attitudes about lesbian, gay, bisexual, and transgendered clients: urban vs. rural settings. *Subst Use Misuse*. 2004;39:625-44.
- ¹⁷ Lucas GM, Chaudhry A, Hsu J, et al. Clinic-based treatment of opioid-dependent HIV-infected patients versus referral to an opioid treatment program: a randomized trial. *Ann Intern Med*. 2010;152:704-11.
- ¹⁸ Sullivan LE, Barry D, Moore BA, et al. A trial of integrated buprenorphine/naloxone and HIV clinical care. *Clin Infect Dis*. 2006;43(Suppl 4):S184-90.
- ¹⁹ Jones HE, Kaltenbach K, Heil SH, et al. Neonatal abstinence syndrome after methadone or buprenorphine exposure. *N Engl J Med*. 2010 Dec 9;363(24):2320-31.
- ²⁰ Bakstad B, Sarfi M, Welle-Strand GK, Ravndal E. Opioid maintenance treatment during pregnancy: occurrence and severity of neonatal abstinence syndrome. A national prospective study. *Eur Addict Res*. 2009;15:128-34.
- ²¹ Galvan FH, Bing EG, Fleishman JA, et al. The prevalence of alcohol consumption and heavy drinking among people with HIV in the United States: results from the HIV Cost and Services Utilization Study. *J Stud Alcohol*. 2002;63:179-86.
- ²² Cook RL, Sereika SM, Hunt SC, et al. Problem drinking and medication adherence among persons with HIV infection. *J Gen Intern Med*. 2001;16:83-8.
- ²³ Samet JH, Horton NJ, Meli S, et al. Alcohol consumption and antiretroviral adherence among HIV-infected persons with alcohol problems. *Alcohol Clin Exp Res*. 2004;28(4):572-7.
- ²⁴ Baum MK, Rafie C, Lai S, et al. Alcohol use accelerates HIV disease progression. *AIDS Res Hum Retroviruses*. 2010;26:511-8.
- ²⁵ Garbutt JC. Efficacy and tolerability of naltrexone in the management of alcohol dependence. *Curr Pharm Des*. 2010;16:2091-7.
- ²⁶ Gonzales RA, Job MO, Doyon WM. The role of mesolimbic dopamine in the development and maintenance of ethanol reinforcement. *Pharmacol Ther*. 2004;103:121-46.
- ²⁷ Kranzler HR, Gage A. Acamprosate efficacy in alcohol-dependent patients: summary of results from three pivotal trials. *Am J Addict*. 2008;17:70-6.
- ²⁸ Tsao JC, Soto T. Pain in persons living with HIV and comorbid psychology and substance use disorders. *Clin J Pain*. 2009;25:307-12.
- ²⁹ Compton MA. Cold-pressor pain tolerance in opiate and cocaine abusers: correlates of drug type and use status. *J Pain Symptom Manage*. 1994;9:462-73.
- ³⁰ Berg KM, Arnsten JH, Sacajiu G, et al. Providers' experiences treating chronic pain among opioid-dependent drug users. *J Gen Intern Med*. 2009;24:482-8.
- ³¹ Compton P, Charuvastra VC, Kintaudi K, et al. Pain responses in methadone-maintained opioid abusers. *J Pain Symptom Manage*. 2000;20:237-45.
- ³² Doverty M, White JM, Somogyi AA, et al. Hyperalgesic responses in methadone maintenance patients. *Pain*. 2001;90:91-6.
- ³³ Alford DP, Compton P, Samet JH. Acute pain management for patients receiving maintenance methadone or buprenorphine therapy. *Ann Intern Med*. 2006;144:127-34.
- ³⁴ Blinderman CD, Sekine R, Zhang B, et al. Methadone as an analgesic for patients with chronic pain in methadone maintenance treatment programs (MMTPs). *J Opioid Manag*. 2009;5:107-14.
- ³⁵ Davis WR, Johnson BD. Prescription opioid use, misuse, and diversion among street drug users in New York City. *Drug Alcohol Depend*. 2008;92:267-76.
- ³⁶ Castells X, Casas M, Pérez-Mañá C, et al. Efficacy of psychostimulant drugs for cocaine dependence. *Cochrane Database Syst Rev*. 2010;2:CD007380.
- ³⁷ Gaval-Cruz M, Weinschenker D. Mechanisms of disulfiram-induced cocaine abstinence: antabuse and cocaine relapse. *Mol Interv*. 2009;9:175-87.
- ³⁸ Kenna GA, Nielsen DM, Mello P, et al. Pharmacotherapy of dual substance abuse and dependence. *CNS Drugs*. 2007;21:213-37.
- ³⁹ Leggio L, Garbutt JC, Addolorato G. Safety and efficacy of baclofen in the treatment of alcohol dependent patients. *CNS Neurol Disord Drug Targets*. 2010;9:33-44.
- ⁴⁰ Shinn AK, Greenfield SF. Topiramate in the treatment of substance-related disorders: a critical review of the literature. *J Clin Psychiatry*. 2010;71:634-48.

This chart provides information on drug-drug interactions between individual antiretroviral agents, methadone, and buprenorphine. Potential drug-drug interactions between methadone or buprenorphine and other medications should be evaluated prior to their co-administration.

| Antiretroviral Agents | Methadone | Buprenorphine |
|--|--|--|
| Nucleoside Reverse Transcriptase Inhibitors | | |
| Abacavir (Ziagen; Trizivir and Epzicom also contain abacavir.) | <ul style="list-style-type: none"> ▶ Abacavir increases methadone clearance; monitor for withdrawal symptoms. ▶ Methadone has no effect on blood levels of abacavir. | Not studied |
| Didanosine (ddl) tablet or EC | <ul style="list-style-type: none"> ▶ ddl has no effect on methadone. ▶ Methadone decreases the amount of ddl in the bloodstream; enteric-coated capsules are recommended for co-administration with methadone. | ddl has no effect on buprenorphine. |
| Emtricitabine (FTC; Truvada and Atripla also contain FTC.) | <ul style="list-style-type: none"> ▶ Interaction is not anticipated and has not been studied. | Interaction is not anticipated and has not been studied. |
| Lamivudine (3TC, Epivir; Combivir, Trizivir and Epzicom also contain 3TC.) | <ul style="list-style-type: none"> ▶ 3TC has no effect on methadone. ▶ Methadone's effect on 3TC has not been studied. | 3TC has no effect on buprenorphine. |
| Stavudine (d4T; Zerit) | <ul style="list-style-type: none"> ▶ d4T has no effect on methadone. ▶ Methadone lowers the amount of d4T in the bloodstream, but the effect is not likely to be clinically significant. | Not studied |
| Tenofovir (Viread; Truvada and Atripla also contain tenofovir.) | <ul style="list-style-type: none"> ▶ Tenofovir has no effect on methadone. ▶ Methadone's effect on tenofovir has not been studied. | <ul style="list-style-type: none"> ▶ Tenofovir has no effect on buprenorphine. ▶ Buprenorphine's effect on tenofovir has not been studied. |
| Zidovudine (AZT, Retrovir; Combivir and Trizivir also contain zidovudine.) | <ul style="list-style-type: none"> ▶ AZT has no effect on methadone. ▶ Methadone can increase AZT level. Risk of AZT toxicity exists; patients should be monitored for signs and symptoms. | No significant interactions |
| Non-Nucleoside Reverse Transcriptase Inhibitors | | |
| Delavirdine (Rescriptor) | <ul style="list-style-type: none"> ▶ Delavirdine increases methadone levels in the bloodstream; methadone dose reduction may be necessary when co-administered with delavirdine. Use with caution. ▶ Methadone has no effect on delavirdine. | Not studied |
| Efavirenz (Sustiva; Atripla contains Sustiva) | <ul style="list-style-type: none"> ▶ Efavirenz significantly lowers methadone levels; withdrawal may occur. Increase methadone dose. ▶ Methadone's effect on efavirenz has not been studied. | <ul style="list-style-type: none"> ▶ Efavirenz lowers buprenorphine in bloodstream, but no withdrawal symptoms result; no dose adjustment is needed. ▶ Buprenorphine's effect on efavirenz has not been studied. |
| Etravirine (Intelence) | <ul style="list-style-type: none"> ▶ Low-dose etravirine (100 mg twice daily) resulted in a slight increase in methadone in the bloodstream over 14 days; no dose adjustment is required. ▶ Methadone has no effect on etravirine. | Not studied in humans |
| Nevirapine (Viramune) | <ul style="list-style-type: none"> ▶ Nevirapine significantly lowers the amount of methadone in the bloodstream, and withdrawal symptoms are common; increase methadone dose. ▶ Methadone has no effect on nevirapine. | <ul style="list-style-type: none"> ▶ Nevirapine has no effect on buprenorphine. ▶ Buprenorphine has no effect on nevirapine. |
| Protease Inhibitors | | |
| Atazanavir (Reyataz) Atazanavir/r* | <ul style="list-style-type: none"> ▶ Atazanavir has no effect on methadone. ▶ Methadone has no effect on atazanavir levels. | <ul style="list-style-type: none"> ▶ Ritonavir-boosted atazanavir significantly increases the amount of buprenorphine in the bloodstream, and oversedation may occur; titrate buprenorphine dose carefully. ▶ Buprenorphine has no effect on atazanavir. |

| Antiretroviral Agents | Methadone | Buprenorphine |
|-------------------------------------|---|--|
| Protease Inhibitors (cont'd) | | |
| Darunavir/r* (Prezista/r) | <ul style="list-style-type: none"> ▶ Darunavir lowers the amount of methadone in the bloodstream; although dose adjustment may not be necessary in all patients, monitoring for withdrawal symptoms is recommended. ▶ Methadone has no effect on darunavir. | Darunavir does not change buprenorphine levels, but it increases norbuprenorphine; this does not cause symptoms, but clinical monitoring is recommended. |
| Fosamprenavir/r (Lexiva) | <ul style="list-style-type: none"> ▶ Fosamprenavir lowers levels of S-methadone (associated with potentially life-threatening cardiac toxicity) in the bloodstream, but not R-methadone (which is involved with opioid effect). Although effects are not clinically significant, monitoring for withdrawal symptoms is recommended. ▶ Methadone has no effect on fosamprenavir. | Fosamprenavir/r and buprenorphine have not been studied in human beings. |
| Indinavir/r (Crixivan) | <ul style="list-style-type: none"> ▶ Indinavir does not significantly change methadone level. ▶ Methadone does not cause clinically significant changes in amount of indinavir in the bloodstream. | Not studied |
| Lopinavir/r (Kaletra) | Kaletra lowers the amount of methadone in the bloodstream and withdrawal symptoms may occur; it may be necessary to increase methadone dose. Methadone has no significant effect on lopinavir. | <ul style="list-style-type: none"> ▶ Kaletra does not significantly change buprenorphine level. ▶ Buprenorphine does not significantly change kaletra level. |
| Nelfinavir | <ul style="list-style-type: none"> ▶ Nelfinavir lowers the amount of methadone in the bloodstream. Although there are usually no withdrawal symptoms, methadone dose may need to be increased. ▶ Methadone lowers levels of nelfinavir's active metabolite (M8) in the bloodstream; the effect is unlikely to be clinically significant. | Not studied |
| Ritonavir (Novir) | <ul style="list-style-type: none"> ▶ Ritonavir may decrease the amount of methadone in the bloodstream. Monitoring for withdrawal and consideration of dose adjustment are recommended. ▶ Methadone has no effect on ritonavir. | Not studied |
| Saquinavir/r | <ul style="list-style-type: none"> ▶ Saquinavir decreases the amount of methadone in the bloodstream; dose adjustment may be needed. Use with caution, due to additive effects on QT and/or PR interval prolongation that may occur with invirase/ritonavir. ▶ Effect of methadone on saquinavir has not been studied. | Not studied |
| Tipranavir/r (Aptivus) | <ul style="list-style-type: none"> ▶ Tipranavir decreases the amount of methadone in the bloodstream by 50 percent; methadone dose may need adjustment. ▶ No data on methadone–tipranavir co-administration are available. | <ul style="list-style-type: none"> ▶ Tipranavir has no effect on buprenorphine. ▶ Buprenorphine lowers tipranavir in the bloodstream by 19 to 25 percent; therapeutic drug monitoring may be needed. |
| Integrase Inhibitor | | |
| Raltegravir (Isentress) | <ul style="list-style-type: none"> ▶ Raltegravir has no effect on methadone. ▶ Methadone has no effect on raltegravir. | <ul style="list-style-type: none"> ▶ Raltegravir interaction with buprenorphine has been studied, but no data have been published. ▶ Buprenorphine has no effect on raltegravir. |
| Entry/Fusion Inhibitors | | |
| T-20 (Enfuvirtide, Fuzeon) | Interaction is not anticipated and has not been studied. | Interaction is not anticipated and has not been studied. |
| Maraviroc (Selzentry) | Not studied | Not studied |

* "/r" indicates ritonavir boosted.

Sources:

Altice FL, Kamarulzaman A, Soriano VV, et al. Treatment of medical, psychiatric and substance-use comorbidities in people infected with HIV who use drugs. *Lancet*. 2010;376(9738):367. (Used with permission.)
 Baker K, Gruber VA, Moody DE, et al. *Interactions between buprenorphine and antiretrovirals: nucleos(t)ide reverse transcriptase inhibitors (NRTI) didanosine, lamivudine, and tenofovir*. Presentation at the 49th Interscience Conference on Antimicrobial Agents and Chemotherapy (Abstract A1–1306), September 12–15, 2009, San Francisco.
 Invirase label. www.fda.gov/downloads/Drugs/DrugSafety/UCM229206.pdf. Accessed on April 16, 2011.
 Norvir label. www.accessdata.fda.gov/drugsatfda_docs/label/2005/020659s034,020945s017lbl.pdf. Accessed on April 16, 2011.
 Sekar V, Tomaka F, Lefebvre E, et al. Pharmacokinetic interactions between darunavir/ritonavir and opioid maintenance therapy using methadone or buprenorphine/naloxone. *J Clin Pharmacol*. 2011 Feb;51(2):271-8.
 Viracept label. www.accessdata.fda.gov/drugsatfda_docs/label/2011/020778s035,020779s056,021503s017lbl.pdf. Accessed on April 16, 2011.

Screening and Ongoing Assessment for Substance Abuse in HIV

Guideline and Commentary

Barbara Chaffee, MD, MPH

Posted: 04/05/2011

Substance Abuse in HIV: Expert Commentary

In the early 1990s, on the door of a bar in a small city where HIV was not yet common, there was among the scribbled graffiti the phrase "Sex for coke -- call Linda." The words and their location (a bar) summarized how the HIV epidemic would grow through sex, drug and alcohol use, and sex in exchange for drugs. In the past 30 years of the HIV epidemic, great progress has been made in treatment but not nearly so much progress in prevention, and drug and alcohol use are key culprits.

Problematic drug and alcohol use and abuse are associated with many medical problems, perhaps none so much as HIV/AIDS. A person who is drinking heavily is more likely than his/her sober peers to practice unsafe sex and therefore is at increased risk of acquiring and spreading HIV infection.

HIV infection is passed by sexual contact, blood exposure, and from mother to child. Because mood-altering drugs including alcohol are frequently associated with unsafe sex and/or needle sharing, the prevalence of problematic drug and alcohol use is high among patients with HIV/AIDS. This drug and alcohol use then further increases the risk for transmission of HIV infection. In addition to increasing the risk for transmission, alcohol has a direct toxic effect on the immune system lowering the CD4 count and increasing the HIV viral load.⁽¹⁾

Once infected, a substance-using patient is less likely to adhere to antiretroviral medications correctly, thus increasing the risk for viral resistance. This sequence of events applies to alcohol and all forms of drug use. Fortunately, needle exchange programs and information about cleaning needles have reduced the rate of new infections due to needle sharing, but people with drug and alcohol misuse problems remain a population at increased risk for HIV.

Clinicians caring for patients with HIV/AIDS therefore need to screen all HIV/AIDS patients for ongoing or recurrent drug and alcohol use and abuse. There are many screening tools that can help identify these problems. None of these tools is perfect, and the most important element of a good history is probably the manner by which the clinician asks the questions: a nonjudgmental tone and body language being key.

An anonymous wit has said that an alcoholic is a patient who drinks more than the doctor. A better definition is that an alcoholic is someone whose use of alcohol causes medical, social, or legal problems, and that person is unable to change his/her use in reaction to these problems. Motivating patients to accept treatment of their drug and alcohol dependence is not easy and often takes a long time; making the diagnosis and helping patients accept the diagnosis is the first step.

Clinicians need to convey empathy and to remember that the patient who minimizes or denies his/her drug or alcohol use may do so due to struggles with his/her loss of control. If the clinician scolds or lectures the patient then the patient will be less likely to reveal the true extent of his/her use, but if the tone is sympathetic then the patient is more likely to accept a referral for treatment of the substance use.

Reference

1. Hahn JA, Samet JH. Alcohol and HIV disease progression: weighing the evidence. *Curr HIV/AIDS Rep.* 2010;7:226-233.

Screening and Ongoing Assessment for Substance Abuse: Guideline for Care

Editor's Note:

This guideline was prepared and published by the New York State Department of Health AIDS Institute [HIV Clinical Guidelines Program](#). It has been republished here. Please note that recommendations are assigned an evidence-based rating and use the [rating scheme](#) developed by the Department of Health and Human Services.

Introduction

Recommendations. Clinicians should screen all HIV-infected patients for substance use at baseline and at least annually. Screening questions should be phrased to include both alcohol and drug use.

The use and abuse of alcohol and other mood-altering substances can be problematic for both patients and the clinicians who are trying to assess such use. However, identification of patients who need referral to substance and alcohol treatment units, as well as those whose risky or harmful use affects their ongoing health, is a crucial part of HIV care.

A recent meta-analysis of studies that address behavioral counseling interventions for risky and harmful alcohol use found that such interventions may help patients reduce alcohol consumption.^[1] Risky drinkers are defined as those who consume alcohol above recommended daily, weekly, or per-occasion amounts. Harmful drinkers do not meet the criteria for abuse or dependence but experience physical or psychological harm associated with their alcohol use, such as impaired judgment, dysfunctional behavior, or problems with interpersonal relationships. Patients who meet the criteria for drug or alcohol dependence (see [Appendix I](#)) should be referred to treatment programs. Brief counseling interventions are appropriate for those with risky or harmful use as defined above, or to help motivate patients with dependence who decline referral for care.

The prevalence of problematic (risky, harmful, or dependent) substance and alcohol use can be as high as 20%-40% in acute care settings^[2]; however, many patients with substance and alcohol dependence are not identified as having a problem because it is difficult to obtain an accurate history of substance use. Identifying substance use can be a key factor in HIV care, not only to address the problems associated with the substance use *per se*, but also to help patients adhere to HIV medications.

Key Point

Screening for substance use is particularly important in HIV-infected patients because 1) both alcohol and substance use are risk factors for HIV infection acquisition and transmission, and 2) addressing problems associated with substance use can help patients improve adherence to HIV medications and adopt risk-reduction behaviors, such as practicing safer sex.

Clinicians need to be particularly vigilant in screening HIV-infected patients for all levels of alcohol and other substance use and abuse because even intermittent use can interfere with adherence to medications,^[3] raise the risk of side effects from medications, and reduce the patient's ability to practice safer sex.

HIV-infected patients should be screened annually for substance use even if the baseline screen is negative. As patients become more comfortable with their clinician, they may provide a more accurate history regarding sensitive issues, including substance use. Examples of screening instruments that can be easily integrated into primary care practice are shown in [Appendix II](#).

General Approach to Screening for Substance Abuse

Recommendations. The clinician should incorporate selected brief screening instruments into the history-taking process. The chosen screening instruments should be tailored for optimal use at initial, annual, and interim visits and adjusted for the patient's

substance use history.

To obtain more reliable results, the clinician should perform screening tests when patients are not under the influence of substances.

The clinician should carefully screen patients who are heavy smokers for other addictions because heavy smoking is often a surrogate marker of other substance and alcohol dependence.

When a patient's response to a query indicates substance use, clinicians should inquire about injection drug use, both currently and anytime in the past.

The clinician should use nonjudgmental language when inquiring about substance use.

Basic Principles of Screening

- Ask about current and past substance use in a nonjudgmental way.
- Ask about the most commonly used recreational drugs including alcohol, marijuana, stimulants (cocaine including crack cocaine, methamphetamines), opiates, and benzodiazepines. A separate question about the use and abuse of prescription opiates and benzodiazepines is also important.
- Ask if the patient, or those around him/her, has any perception of having a substance use problem, now or in the past.
- If patient denies substance use, but historical, physical, or laboratory indicators suggest it (see Table 1), continue to inquire about substance use at subsequent visits.

Table 1. Common Indicators of Possible Substance and/or Alcohol Use/Abuse

| | |
|---|---|
| <p>History</p> | <ul style="list-style-type: none"> • History of referrals or participation in substance/alcohol treatment programs • Trauma, especially after drinking/substance use • Legal problems • Job loss, turnover, downward mobility • Relationship problems • Medical history: seizures, pancreatitis, liver disease, cytopenias, tachyarrhythmias, endocarditis, abscesses • History of psychiatric symptoms, especially affective disorders • History of or current heavy smoking |
| <p>Physical signs (a) Use in diagnosing and monitoring (substances associated with finding) (b) Except under certain circumstances consent is not appropriate. To optimize the reliability of the information being gathered (screening should be performed when the patient does not have alcohol on his/her breath or appear to be under the influence of any drug. Screening questions that vary from brief to more detailed should be asked, using the more detailed questions to explore situations which are suspicious for problem drinking/substance use. Because polydrug use is not uncommon in substance-using patients, clinicians should investigate for the use of additional substances when the patient discloses use of a particular substance or when indicators are present for the use of a particular substance. The more comprehensive an understanding the clinician has regarding the full spectrum of the patient's drug use, the higher the quality of care that can be provided.</p> | <p>(see Section: <i>Ongoing Assessment of Patients With Known Substance/Alcohol Abuse</i>)</p> <ul style="list-style-type: none"> • Hypertension (alcohol, cocaine, methamphetamine) • Resting tachycardia (alcohol, cocaine, marijuana, methamphetamine) • Tremor (alcohol withdrawal or stimulant intoxication) • Alcohol on breath • Dilated pupils (stimulant use or sedative withdrawal) • Small pupils (opiate use) • Needle marks/tracks (any injection use) • Bruises or healed fractures, especially of the ribs (alcohol) • Purplish faces (alcohol) • Hepatomegaly (alcohol) • Weight loss (cocaine, methamphetamine) <p>Screening questions that vary from brief to more detailed should be asked, using the more detailed questions to explore situations which are suspicious for problem drinking/substance use.</p> <p>Because polydrug use is not uncommon in substance-using patients, clinicians should investigate for the use of additional substances when the patient discloses use of a particular substance or when indicators are present for the use of a particular substance. The more comprehensive an understanding the clinician has regarding the full spectrum of the patient's drug use, the higher the quality of care that can be provided.</p> |

Clinicians should be comfortable with inquiring about substance use, which, in turn, will allow the patient to feel at ease when providing information. Patients often minimize or deny alcohol and substance use because of the stigma associated with addiction and also because they are struggling with its use and report what they want to be true. Clinicians can generally obtain a more accurate history by asking questions in a way that *gives the patient permission to tell the truth*. Striving to be nonjudgmental will help the clinician build a trusting relationship and will encourage the patient to give honest answers. This is a skill that can be applied to many other aspects of HIV care, including adherence counseling and sexual history taking.

Establishing good rapport with patients is important and can be facilitated through a variety of questions. The clinician should consider:

- Rephrasing questions. Instead of asking: *Do you drink?* the clinician can ask: *What do you like to drink: beer, wine, or liquor?*
 - If the patient says s/he doesn't drink, then ask: *Not even for a wedding? Or New Year's?* (or some other socially acceptable time).
 - If the patient continues to deny drinking or substance use, ask: *Was there ever a time when you did drink (or use drugs)?*
- Phrasing a question with "even once," such as: *Did you ever **even once** shoot up to get high?* may provide useful information for the clinician.
- Assessing whether the patient is actively using alcohol or drugs -- this is a key issue for determining medical care. Example: *When was the last time you had **even a sip**?* may be a good way to find out about current drinking.
- Sounding comfortable with the questions asked, using street terms for substances and substance use. Example: *So when was the last time you smoked any weed?* may get a more accurate answer than: *Do you use marijuana?*
- Seeking assistance when necessary. Clinicians who are uncomfortable asking questions about substance use and alcohol issues may want to delegate screening to another member of the healthcare team; however, physicians and midlevel clinicians are in a unique position as primary care providers to help patients with these issues.

Identifying Clinical Indicators

Some common clinical indicators may facilitate identification of alcohol and substance use problems. Many surrogate markers listed in Table 1 can follow from other causes, particularly in the setting of HIV or HIV/hepatitis C coinfection; however, these indicators should prompt a screen or rescreen for substance/alcohol problems.

Heavy smoking is often a surrogate marker of other substance and alcohol dependence and should prompt the clinician to screen in more detail for other addictions. Screening for nicotine addiction itself is also an important aspect of HIV primary care. The Fagerstrom Test for Nicotine Dependence has been used for this purpose and can be beneficial in guiding the patient and clinician toward appropriate therapy^[4] (see [Appendix III](#)). See [Smoking Cessation in HIV-Infected Patients](#) for more information concerning smoking.

Use of Screening Instruments

Screening instruments, such as those shown in [Appendix II](#), can be effective in assessing whether a given patient has a problem with substance use, but the informal or expanded history taking illustrated in the section on *General Approach to Screening for Substance Use* often yields important information as well. The screening tools were developed with a strict adherence to scripted questions in order to improve the validity of the scoring. Patients' responses to the scripted questions often provide useful prompts for further exploration by clinicians.

Many attempts have been made to develop a sensitive and efficient screening tool to identify patients with alcohol and substance

use problems. No single set of questions has been shown to be better than any other, and there are no large studies examining or comparing these tools in HIV-infected patients. Clinicians should adapt their questions to the individual patient and his/her situation and needs; some familiar tools, such as the CAGE questionnaire, are not as sensitive in younger patients. Appendix II lists examples of screening tools commonly used in primary care settings and includes target populations for each tool. A [Quick Reference Substance Use Screening Card](#) is also available.

Some screening tools for substance use/abuse have adopted many of the same questions as those used for screening alcohol problems. Some clinicians find it helpful to modify screening tools that have been validated using alcohol questions to also include other drugs. For example, *How often do you have a drink containing alcohol or use drugs?*

Ongoing Assessment of Patients With Known Substance/Alcohol Abuse Problems

Recommendations. If the initial drug screening result is positive, or if the patient has a history of substance use, the clinician should re-evaluate the patient's drug use at least quarterly.

Clinicians should ask patients with a history of substance use about their last use of alcohol and substances to help diagnose relapses earlier and refer the patient back into care.

Clinicians should offer patients with active substance use/abuse problems referral to appropriate substance use treatment programs or other substance use services.

Blood alcohol levels and urine drug screens should not be ordered as routine screening tests. When these tests are performed, patient consent should be obtained.

Clinicians should provide positive feedback to patients who are successfully engaged in a recovery program.

A range of substance use treatment referral options is available, and clinicians should be familiar with the alcohol and substance use treatment programs and services in their areas. Patients who are currently using substances or alcohol but have a history of good recovery may need just a simple reminder to return to their previous support systems. Outpatient substance abuse treatment services and Twelve Step programs, such as Alcoholics Anonymous and Narcotics Anonymous, are some of the options available for these patients. Other patients may need referral to inpatient treatment or supportive living. Clinicians who are not addiction specialists should offer referral to programs that can help the patient choose among these options. Active addiction is a complex process and patients often refuse referral for help. See [Working With the Active User](#) for guidance in dealing with active users.

Patients with a known history of substance/alcohol dependence are at high risk for relapse, particularly when stressed by a new diagnosis of HIV or its complications. By asking patients who are in early recovery about the date of last use of substances, alcohol, and tobacco at every monitoring visit, clinicians can diagnose relapses earlier and refer patients back into care (see Section IV. B. "[Relapse Prevention](#)" in [Working With the Active User](#)). Patients who use multiple drugs may succeed at discontinuing the use of one drug while continuing to use others. Clinicians should phrase questions to inquire into the use of other substances as well.

A urine drug screen or blood alcohol level (BAL) should be obtained only with the patient's consent, except under medically indicated conditions, such as suspected drug overdose, where the results would provide clinically significant information for appropriate treatment decisions. The tests are generally not clinically helpful when performed routinely, but may elucidate a clinical scenario in which substance use is suspected. If the urine drug screen or BAL is obtained and results suggest that the patient has been using alcohol or substances, the clinician should gently challenge the patient's statement, express concern, and recommend referral to treatment.

Key Point

A refusal for a urine drug screen or blood alcohol level should raise suspicion that the patient has relapsed.

Clinicians should give positive feedback to a patient who is engaged in a recovery program. The question: *When did you last drink or use?* can be asked in a supportive fashion. For example, asking the patient: *So how long have you been sober/straight? Is it 6 months? No sips or slips? Great!* can be a simple way to provide support for recovery. Clinicians should also express support for patients who continue to use, but have succeeded in reducing use. If a patient has resumed use after a period of recovery, the clinician should express concern and recommend ways to move back toward recovery.

References

1. Whitlock EP, Polen MR, Green CA, Orleans T, Klein J; U.S. Preventive Services Task Force. Behavioral counseling intervention in primary care to reduce risky/harmful alcohol use by adults: a summary of the evidence for the U.S. Preventive Services Task Force. *Ann Intern Med.* 2004;140:557-568.
2. Isaacson JH, Schorling JB. Screening for alcohol problems in primary care. *Med Clin North Am.* 1999;83:1547-1563,viii.
3. Murphy DA, Marelich WD, Hoffman D, Steers WN. Predictors of antiretroviral adherence. *AIDS Care.* 2004;16:471-484.
4. Heatherington TF, Kozlowski LT, Frecker RC, Fagerström KO. The Fagerstrom Test for Nicotine Dependence: a revision of the Fagerstrom Tolerance Questionnaire. *Br J Addict.* 1991;86:1119-1127.



SMOKING AND HIV

WHY IS SMOKING MORE DANGEROUS FOR PEOPLE WITH HIV?

People with HIV disease are more likely to smoke than healthy people. Smoking can interfere with normal lung function in healthy people. In people with HIV, smoking can make it more difficult to fight off serious infections.

People with HIV disease are now living longer. Smoking and related problems can interfere with long term quality of life.

WHAT ARE THE RISKS OF SMOKING?

Smoking weakens the immune system. It can make it harder to fight off HIV-related infections. This is especially true for infections related to the lungs. This is a risk for smoking marijuana as well as tobacco. Having HIV increases the risk of chronic lung disease.

Smoking can interfere with processing of medications by the liver. It can also worsen liver problems like hepatitis.

Smoking and Side Effects

People with HIV who smoke are more likely to suffer complications from HIV medication than those who don't. For example, those who smoke are more likely to experience nausea and vomiting from taking HIV medications.

Smoking increases the risk of some long-term side effects of HIV disease and treatment. These include osteoporosis (weak bones that can lead to fractures, see fact sheet 557) and osteonecrosis (bone death, see fact sheet 559.) HIV treatment slightly increases the risk of heart attack, but smoking is the major controllable risk factor for heart attacks or strokes.

Recent studies found that quitting smoking reduced heart attack risk in HIV patients more than other factors such as changes in medications.

Smoking and Opportunistic Infections

People with HIV disease who smoke are more likely to develop several opportunistic infections (see fact sheet 500) related to HIV. They are more likely to develop:

- thrush (see fact sheet 501)
- oral hairy leukoplakia (whitish mouth sores)
- bacterial pneumonia
- pneumocystis pneumonia (PCP, see fact sheet 515)

For women, smoking can increase the risk and severity of infection with human papilloma virus (HPV, see fact sheet 510). This increases the risk of cervical disease.

Recently, the bacteria that cause Mycobacterium avium complex (MAC, see fact sheet 514) were linked to smoking. They were found in tobacco, cigarette paper and filters even after they had been burned.

Smoking and Risk of Death

A recent study found that smoking among people with HIV was linked to a higher rate of death. This was true for current smokers and ex-smokers. The greatest increase in the risk of death - 60% - was for cardiovascular (heart) disease and some cancers.

HOW DO I QUIT SMOKING?

Smoking (nicotine) is highly addictive. It is very difficult to stop smoking. There is no one way to quit smoking. Different methods of quitting work better for different people. You and your doctor can develop a combination of approaches that work best for you.

Some people quit smoking "cold turkey." That is, they just stop smoking. Other people need some kind of support. This can be from medications that manage the physical symptoms of withdrawal. It might also be therapies that deal with the psychological addiction to smoking.

Nicotine withdrawal can be treated with medications. Some are available over the counter, while others require a prescription. Gums and lozenges that reduce nicotine cravings are often available over-the-counter. Prescription medications include inhalers and nasal sprays, and a pill. All these treat the physical and chemical symptoms of withdrawal.

Some people also get help in quitting smoking by:

- altering the routines that encourage them to smoke
- getting support to reduce outside factors like stress that encourage them to smoke
- participating in motivational groups

Some people have good success with alternative treatments like acupuncture, hypnosis and biofeedback.

THE BOTTOM LINE

For people already infected, smoking can reduce the immune system's capabilities to fight infections.

There are many ways to quit smoking. You and your health care provider can discuss the ways that would work best for you.

FOR MORE INFORMATION

American Lung Association: (800) LUNG-USA or at <http://www.lungusa.org>

The American Cancer Society's Great American Smoke Out: follow link at <http://www.cancer.org/>

Gay American Smoke Out at <http://www.gaysmokeout.net/>

U.S. Health and Human Services – Information on Quitting: <http://www.surgeongeneral.gov/tobacco/>

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Smoking, not immunodeficiency or lung disease, increases lung cancer risk for patients with HIV

Michael Carter
Published: 17 January 2012

Cigarette smoking is the single most important risk factor for lung cancer in patients with HIV, Swiss investigators report in the online edition of the *British Journal of Cancer*.

Smoking was associated with a 14-fold increase in the risk of the malignancy. Unlike some other studies, the Swiss found no evidence that either a low CD4 cell count or a history of AIDS-defining lung disease were associated with lung cancer.

The study also showed the benefits of stopping smoking. The risk of lung cancer was significantly lower for former smokers compared to current smokers.

"Focusing on ways to help to quit smoking would be effective in reducing lung cancer," comment the investigators.

Lung cancer is one of the more common non-AIDS-defining cancers seen in patients with HIV. This could be because a large proportion of HIV-positive patients are smokers and studies have shown a consistent relationship between smoking and lung cancer risk for HIV-positive individuals.

However, some research has found a relationship between the malignancy and immune deficiency. In addition, other studies have shown that patients with a history of AIDS-defining pulmonary disease are also at greater risk of lung cancer. Importantly, the associations identified in these studies remained significant after controlling for smoking status.

Given this confusion, investigators from the Swiss HIV Cohort designed a case-controlled study to better identify the factors associated with an increased risk of lung cancer in their patients.

Patients who received HIV care in Switzerland between 1985 and 2010 were eligible for inclusion in the study. Each patient with lung cancer was matched with five patients who did not develop the malignancy. The control patients were of the same age, gender and HIV risk group as the cancer patients.

A total of 68 patients with lung cancer were identified, who were matched with 337 controls.

Most of the patients with cancer were men (79%) and their mean age at cancer diagnosis was 50 years. The overwhelming majority of cases (87%) were diagnosed after effective antiretroviral therapy became available in 1996. The investigators believe that this "may be largely an artefact of the increased survival of HIV-infected persons", thanks to antiretroviral drugs.

Survival was poor as only 14% of patients were still alive two years after the diagnosis of their cancer.

Prevalence of smoking was high. In all, 85% of lung cancer patients reported that they were current smokers and 6% were former smokers. There was a 50% prevalence of smoking among the control patients, and a quarter had smoked in the past.

There was a strong association between lung cancer and current smoking (OR vs never smoked = 14.4; 95% CI, 3.36-16.6).

"We observed a high prevalence of smoking...and the expected large increased risks for lung cancer among smokers," the investigators emphasise.

Former smokers had a significantly lower risk of lung cancer compared to current smokers (OR = 0.22; 95% CI,

0.08-0.59).

“The beneficial effects of quitting smoking appear, in relative terms, as important in HIV-infected persons as the general population,” suggest the authors.

Unlike some earlier research, there was no evidence that an AIDS diagnosis with or without pulmonary involvement was associated with lung cancer.

Nor was immunodeficiency associated with an increased risk of lung cancer.

However, a CD4/CD8 ratio lower than 25 within one year of a lung cancer diagnosis had an association of borderline significance with the malignancy (OR = 2.15; 95% CI, 1.00-4.59).

Use of antiretroviral therapy did not increase the risk of lung cancer.

“Our carefully matched case-controlled study...suggests no evidence for a significant effect of HIV-related immunodeficiency on lung cancer risk in this high-risk population,” write the investigators. “None of the classic markers or HIV-related immunodeficiency, including low CD4 cell counts, high viral load nor history of AIDS or AIDS-related pulmonary disease, showed any clear association with lung cancer.”

Reference

Clifford GM et al. *Lung cancer in the Swiss HIV cohort study: role of smoking, immunodeficiency and pulmonary infection*. British Journal of Cancer, online edition. DOI: 10.1038/bjc2011.558, 2011 (click [here](#) for the free abstract).

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