

# **ADAPTING YOUR PRACTICE**

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*Treatment and Recommendations  
for Unstably Housed Patients  
with HIV/AIDS*

Health Care for the Homeless  
Clinicians' Network  
*Third Edition*  
2013

**DISCLAIMER**

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# HIV/AIDS Care for Unstably Housed Patients: Summary of Recommended Practice Adaptations

## MODEL OF CARE

### Service Delivery Design

- **Flexible service system** – Allow walk-in appointments; provide outreach services; identify and resolve system barriers that impede access to care along the entire cascade from testing, linkage to care, retention and long-term adherence, to care and treatment.
- **Integrated, interdisciplinary model of care** – Coordinate medical and psychosocial services across multiple disciplines and delivery systems, including provision of healthful food, clothing, hygiene items, housing, and transportation to service sites. Arrange patients' appointments with other medical or service providers rather than making passive referrals. Facilitate patients' ability to self-manage their own HIV disease.
- **Access to mainstream health care system** – Network with community service providers and medical sub-specialists to facilitate specialty referrals; assist with transportation; accompany patients to appointments; consider the use of treatment advocates, peer navigators, and others who can facilitate access and retention in HIV care and services.

### Engagement

- **Outreach** – Use outreach workers, lay educators, and peer advocates to help locate hard-to-reach individuals and encourage them to obtain medical care. Offer diagnostic testing and treatment at outreach sites.
- **Clinical team** – Include professionals and paraprofessionals with strong engagement skills; listen to patients in nonjudgmental way and try to understand their personal issues and challenges that may impact their HIV management and adherence to care; address psychosocial barriers to health as well as medical issues; employ patient-centered, intensive case management model with the patient as an active participant in decision-making.
- **Therapeutic relationship** – Build mutual trust with patient. Recognize that engagement of unstably housed patients often takes a long time. Promote provider retention and continuity of patient care. Proactively consider safety issues unique to outreach setting and provide crisis de-escalation training. Use regular team meetings and continuing education to promote professionalism and provide support for team members.

## DIAGNOSIS & EVALUATION

### Documentation

- **Thorough documentation** – Careful documentation is necessary in order to optimize coordination of care and patient safety. Releases of information according to state regulations should be followed. Discussions with other providers of care obtained verbally or via written documents should be incorporated into patient's medical record.

### History

- **Review of systems** – Identify symptoms requiring immediate intervention, related to either HIV disease progression, new opportunistic infections (OIs) or co-morbid

conditions, or potential side effects of therapy; assess for chronic symptomatology (weight loss, increasing fatigue, fevers/night sweats, cognitive dysfunction, etc.).

- **Current living situation** – Ask where the patient sleeps and spends time during day; document patient contact information and specify how to contact clinical team. Ask about access to food, shelter, restrooms, place to store medications, and options for stable housing.
- **History of homelessness** – Ask if this is the patient's first time without a home; determine whether lack of stable living situation is transitional, episodic, or chronic. Explore circumstances that precipitated homelessness, psychosocial issues contributing to housing issues, and available housing options acceptable to the patient.
- **Social history** – Ask about family, extended family, and/or current social supports who might make decisions in the event of serious illness requiring hospitalization.
- **Regular activities** – Ask if the patient has a schedule or daily routine; assess how a medical regimen can be integrated into regular activities. Explore ways to improve quality of life, motivation, and capacity for self-care.
- **Medical history** – Ask about prior hospitalizations and treatment. Ask when first diagnosed with HIV, and when and how infected. Inquire about initial, lowest, most recent CD4 counts, last viral load, history of OIs. Ask if ever treated for HIV; if so, which medications were taken and for how long. Inquire about previous side effects, any medication changes/discontinuations, and past adherence to treatment.
- **Previous providers** – If the patient is new to your clinic and received previous treatment, ask why the patient is changing services/providers and what his/her expectations are. Contact prior provider(s) to discuss transfer of care and specific issues after obtaining signed release of information.
- **Behavioral health history** – Ask if ever treated or hospitalized for a mental health or substance use problem, whether currently taking any medications. Evaluate mood, cognitive function, and general outlook. Ask about major stressors and coping mechanisms. Seek insight into the patient's emotional status and priorities.
- **History of abuse/current risk** – Ask if ever physically hurt, afraid of being hurt, or forced to engage in sexual acts. Routinely assess for violence, abusive relationships, and patient safety.
- **Alcohol/drug use** – Ask about current and previous use of alcohol and drugs, including nicotine and inhalants. Inquire about drug(s) of choice, frequency and pattern of use, IDU, injection practices, and access to clean needles. Ask how periods of sobriety were achieved if relevant. Explore triggers and motivation to change substance use behavior.
- **Sexual history/current practices** – Ask about specific sexual practices that may increase risk for HIV infection; if they exchange sex for drugs, food or money; and whether the patient has had sex with men and/or women. Ask about condom use and history of any sexually transmitted diseases.
- **Reproductive history** – Ask female patients about past/current pregnancies, complications, whether any children were HIV-infected, and if so, how treated.
- **Work history** – Ask what types of work the patient has done and longest time held a job. Ask about work-related illness, injuries, and toxic exposure (asbestos, silica, coal).

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Inquire about military service.

- **History of detention/incarceration** – Ask if ever detained by police or incarcerated; and if so, ask about medical treatment during incarceration. Work with health care providers at local correctional facilities to promote continuity of care. Address risk of drug overdose after release with patients with history of detention/incarceration who are using drugs (especially heroin) and facilitate post-incarceration linkage to care.
- **Literacy** – Evaluate ability to read instructions in English or primary language in a non-threatening way.
- **Nutrition/hydration** – Look for signs/symptoms of malnutrition, dehydration. Ask about diet and eating habits; evaluate knowledge of proper diet, food resources, cooking skills, availability of cooking facilities. If the patient is not eating well, determine why. Inquire about access to water and other liquids.
- **Community** – Elicit information about cultural/religious heritage and affiliations. Ask about attitudes of family, friends, community, cultural group toward HIV risk behaviors and persons who contract the virus.

## Physical examination

- **Comprehensive vs. serial, focused examinations** – Do focused physical exams in outreach settings; reserve comprehensive exams for clinic; defer genital exam until the patient feels comfortable unless there are clinical signs or history to indicate genitourinary infections or other issues that should be immediately evaluated.  
**Women** – Offer option of being examined by provider of same sex. Assess for cervical dysplasia, HPV, vaginal candidiasis, pregnancy, evidence of physical/sexual abuse.  
**Sexual minorities** – Provide appropriate exam/screening for biological male taking estrogen, female taking testosterone, patient who has had sexual reassignment surgery or silicon or other implant. Be mindful of desires of the patient (e.g., masculine female to male transgender patient may decline Pap smear or mammogram), but discuss the benefits and risks of recommended treatments. Listen nonjudgmentally to concerns; provide compassionate care.
- **Touch therapy** – Express empathy with appropriate physical contact (hand shake, shoulder touch); but recognize that some patients may find physical contact threatening (pay attention to nonverbal signals or potential cultural issues).
- **Signs & symptoms of HIV complications** – Realize higher risks associated with homelessness for TB, bartonellosis, weight loss and poor nutrition, dehydration, substance abuse, mental health issues, and change in mental status due to comorbidities. Examine for oral candidiasis and voral leukoplakia (especially new patients with limited access to health care/no history of HIV test).
- **Dermatological exam** – Look for skin growths, rashes, and fungal infections in mouth,

groin, feet. Pay special attention to genital and rectal warts, ecto-parasites such as scabies and lice, skin problems associated with IDU, and foot care. Be aware of medications that precipitate sensitivity to sun exposure.

- **Neurological/psychiatric evaluation** – Assess for mental health conditions, including PTSD, substance abuse, and cognitive impairment; explore possibility of underlying psychiatric condition(s) in patients with substance dependence.
- **Dental/retinal exams** – Include dentist and optometrist/ophthalmologist on clinical team; build collaborations and referral systems with these providers; use portable equipment in outreach sites.

## Diagnostic tests

- **HIV testing/screening** – Use rapid testing in outreach settings, including shelters and correctional facilities, and for unstably housed/runaway youth. Provide direct linkage to health care providers and assertive case management to assure access to HIV care and long-term retention. Offer testing to partners and children of HIV+ persons, if not already tested (provide incentives).
- **Pre-test counseling** – Educate the patient about universal HIV testing but give patient the option to decline HIV test; invite questions, offer information about what the test means.
- **Confirmatory test** – If initial screening test (oral mucosal, rapid test, or standard blood test) is positive, do confirmatory test (Western blot/immunofluorescence assay).
- **Post-test counseling** – Be sure the patient is engaged in care when a positive test result is communicated. Be personally available, listen, maintain contact. Use peer counselors (HIV-infected unstably housed/formerly homeless individuals who have done well) to provide social support.
- **Laboratory tests – Baseline labs:** CBC, electrolytes, glucose, BUN, creatinine, liver function tests, lipid studies, urinalysis, toxoplasmosis gondii IgG antibody, RPR or VDRL, hepatitis A antibody total (Hep A, Total), hepatitis B surface antibody (HBsAb), hepatitis B surface antigen (HBsAg), and hepatitis C antibody (Hep C Ab). Pay more attention to liver function tests in unstably housed patients, whose risk for liver damage (secondary to hepatitis, alcoholic cirrhosis) is high. Regularly monitor liver function in patients on ART, hormones, HBV/HCV treatment.
- **HIV Viral load** – Perform HIV viral load test (e.g., HIV-1 RNA quantitative assay or branched chain DNA assay (bDNA)) at baseline exam and every 3-4 months if the patient is stable on therapy. Also check HIV viral load when acute retroviral syndrome is suspected. Avoid HIV RNA assay following single positive rapid antibody test unless the patient reports prior positive HIV test.
- **HIV-1 Resistance testing** – Baseline genotypic resistance testing is recommended for

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all patients prior to initiation of ART and for treatment failure with HIV-1 RNA levels > 500-1000 copies/ml while taking failing regimen. Resistance testing is important even for treatment-naïve patients, 6-16% of whom have at least one major resistance mutation in their wildtype virus prior to starting ART.

- **HLA\*B-5701 testing** – Test all patients for HLA\*B-57 prior to initiating regimen containing abacavir (if assay available). Abacavir is contraindicated for any patient testing positive for HLA\*B-57 (50% chance of severe hypersensitivity reaction).
- **Tuberculin test** – Test HIV+ patient for latent TB using TST/PPD or blood assay test (QFT-g). Re-check unstably housed patients with negative result every 6 months; for those testing positive, do baseline chest X-ray followed by symptom screen every 6 months regardless of CD4 count. Evaluate for active TB disease if any symptoms develop even if skin or blood test is negative. Collaborate with local health department for TB surveillance, screening and referrals to help decrease barriers to care. Provide written record of TB test results on wallet-sized card. Treat patient appropriately, either for latent TB infection or active TB; use directly observed treatment for active TB in partnership with the health department.
- **Hepatitis testing** – Test every HIV+ patient for HCV and screen annually. Test for immune response (anti-HBs) after HBV vaccination; consider double dose of vaccine if no immune titers; consider HBV DNA testing of patients with unexplained increased liver enzymes. Test for immunity (see Baseline labs) and vaccinate for hepatitis A accordingly.
- **Cancer/STI screening** – Pap smear (for cancer, HPV) for all HIV+ women every 6 months until 2 normal Paps, then once per year. GC/chlamydia and RPR or VDRL testing at baseline, then annually or more if clinically indicated. Consider anal Pap smear and tests for rectal *N. gonorrhoeae* and *C. trachomatis* infection at baseline and annually in MSM and any patient with history of anogenital condylomata.
- **Pregnancy test** – Offer UCG urine test to sexually active female patients of childbearing age. Reinforce the importance of barrier method for birth control to prevent STI and transmission of HIV to others even if other contraceptive measures are used.

## PLAN & MANAGEMENT

### Plan of Care

- **Next steps** – Develop plan of care with the patient's active involvement. Specify next steps to expect, balancing patient readiness for treatment with need to address key issues in timely manner.
- **Interdisciplinary team** – Include addiction/mental health counselors, medical care manager, medical case manager/primary social worker, peer (as appropriate to individual client), and treatment advocate on the clinical team. Every member of the team should

engage in care planning/coordination and patient education and maintain a client-centered approach.

- **Basic needs** – Develop strategies with the patient to meet basic needs (food, clothing, housing, mental health issues) as part of individualized plan of care.
- **Patient priorities & goals** – Assess the patient's priorities in meeting immediate and long-term needs. Address immediate medical needs first (patient's reason for the visit) rather than underlying causes.
- **Governmental assistance** – Assist with applications for programs that facilitate access to health and social services (Ryan White, HOPWA, SSI/SSDI, Medicaid, SNAP, Health Care Exchanges). Be mindful that Ryan White operates as a payer of last resort program. Once the individual secures Medical Assistance or other coverage, they are no longer eligible for many Ryan White services. Consequently, engage unstably housed HIV-positive individuals into comprehensive programs that have diversified funding sources so the individual is eligible for services regardless of insurance status.
- **Communication** – Do not criticize the patient; speak in a straightforward, nonjudgmental manner. Listen to the patient's concerns and priorities. Elicit feedback regarding the patient's understanding of the plan of care. Use an interpreter, peer (as appropriate to individual client), or lay educator to facilitate communication and assure culturally competent care for patients with limited English proficiency.

### Education, Self-Management

- **Basic education about HIV** – Teach HIV-infected patients how to know if they are sick, how to tell if illness is serious, how to care for self when sick, when to seek urgent/emergent care. Specify where to get medicine and where to go to recuperate when ill.
- **Self-management of HIV disease** – Providers should facilitate a self-management model in which patients assume an active and informed role in health care decision-making to change behaviors and social relations to optimize their health and proactively address predictable challenges of HIV. Encourage patient's self-efficacy and ability to recognize and address his/her own barriers to retention in care and adherence to treatment.
- **HIV transmission** – Review safer sexual practices; facilitate access to condoms. Teach IV drug users risk reduction strategies: self-administered injections, avoid sharing drug paraphernalia, use of needle exchange program. Stress antiretroviral prophylaxis to reduce perinatal transmission of infection as well the benefit for HIV treatment and viral suppression to prevent transmission to partners. Help HIV-infected mothers who are unstably housed determine most appropriate infant feeding option, depending on individual circumstances (exclusively formula feed or breastfeed; don't alternate between the two).

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- **Prevention** – Discuss ways to reduce HIV risks for the patient and others, emphasizing HIV treatment and viral suppression. Promote behavioral change through individual, small group, and community interventions based on investigation of actual patient behaviors and structural barriers to desired change. Use motivational interviewing, risk reduction techniques, and social skills training. Reinforce information with interactive activities involving repetition, positive feedback, and acting out new skills.
- **Addiction management** – Realize that a history of drug abuse does not preclude successful treatment for HIV. Tailor HIV care to needs of the patient; look for evidence of a stable routine to evaluate readiness for ART. Use outreach and intensive case management to facilitate engagement in care. For patients able to integrate medical regimen into daily routine, use peer educators and counselors to facilitate adherence. For those not ready for ART, promote harm reduction, treat comorbidities, and prescribe OI prophylaxis. Educate the patient about potential interactions between drugs of abuse and antiretroviral medications.
- **HIV therapy** – Assure HIV-infected unstably housed patients that they can manage treatment successfully. Explore their understanding of HIV therapy and address any concerns or misconceptions. Explain what CD4 counts and viral loads are and how these measurements are used. Teach patient to track their own CD4 counts and HIV viral loads to monitor their own response to treatment.
- **Written instructions/reminders** – Specify when to take medications each day; confirm understanding of medical regimen. If trouble reading, refer to member of clinical team who can spend more time explaining instructions; offer referral to literacy/ESL program. Specify any dietary restrictions associated with medications. Ask shelter staff or peer advocates to remind the patient to take medications.
- **Drug resistance** – Explain risk of developing resistance to HIV medications if not taken consistently or appropriately, but stress importance of ART for individual and community benefit.
- **Treatment advocates** – Use social workers, nurses, peers (as appropriate to individual client), or case managers as liaisons between the patient and providers to promote successful treatment adherence.
- **Directly observed therapy** – Use DOT for patients with co-occurring TB, substance use disorders, and/or mental illness; provide transportation assistance to bring them to the clinic once daily to take medications.
- **Side effects management** – Be candid about possible side effects of ART (e.g., diarrhea) and provide recommendations for over the counter or prescription medications to minimize them. Ask what side effects the patient has noticed; if no medical alternative with fewer/less severe side effects is available, explore strategies to minimize/accommodate them. Provide snacks.
- **Urgent medical problems** – Explain symptoms of hypersensitivity and other adverse effects to all prescribed medications. Stress need for prompt evaluation of: fever, new rash, difficulty breathing, abdominal/back pain, vomiting, headache, vision changes. Tell the patient to go to a drop-in clinic or ER if feeling ill. Suggest either continuation or discontinuation of medicine as appropriate.
- **Supportive relationships** – Encourage supportive relationship with a provider, social worker, peer navigator, or friend. Link the patient with a sponsor in a community-based program. Offer social support groups in addition to groups for therapy or counseling. Help patients adapt to living in transitional housing.
- **Nutrition counseling** – Educate the patient about nutrition, diet, dietary supplements. Include a nutritionist/dietician on the clinical team. Prescribe multivitamins, nutritional supplements with less familiar brand names/lower resale value to reduce risk of theft.
- **Medical home** – Explain what primary care is, how to use a regular source of care, and how a relationship with provider(s) can help the patient avoid becoming acutely ill.
- **Education of service providers** – Educate all service providers about HIV and the need for nonjudgmental, compassionate care. Explain to medical providers how treatment adherence and successful outcomes are possible even for unstably housed individuals with behavioral health problems. Educate primary care providers about management of chronic pain and addictions. Understand your own feelings about substance use, sex work, mental illness, homelessness; seek insight from more experienced providers.

### Medications

- **Medical priorities** – Weigh benefits and risks of ART. Take into consideration other medical priorities, including: psychotropic therapy, management of substance abuse and uncontrolled chronic diseases such as hypertension, diabetes, seizures (which can affect HIV treatment). However, recent guidelines recommend considering ART for all adults with HIV infection, with the strength of evidence increasing as CD4 counts decrease.
- **OI Prophylaxis** – Explain importance of prophylaxis for OIs at every visit. If the patient is not initially interested in preventive treatment, provide education and re-assess willingness to take it at subsequent visits. Recognize that taking medications for OI prophylaxis regularly can be an indication of readiness for ART.
- **Immunizations** – Unstably housed patients should receive: influenza vaccine (annually), hepatitis A & B vaccine, Tdap (if no prior vaccination and 11-64 years of age; 1 booster dose if last immunization >10 years ago), and pneumococcal polysaccharide vaccine (PPV) every 5 years.
- **HIV treatment readiness** – Build therapeutic relationship and assure regular source of care before initiating ART. Encourage more frequent visits to prepare for treatment. Evaluate readiness for treatment and ability to adhere to plan of care: understand lifestyle,

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how basic needs are met; look for evidence of a daily routine. Address issues that may complicate adherence (e.g., mental illness, substance use). Involve the patient in making decision to begin ART. Patients starting ART should be willing and able to commit to treatment and understand the benefits and risks of therapy and the importance of adherence. Patients may choose to postpone therapy, and providers, on a case by case basis, may elect to defer therapy on the basis of clinical and/or psychosocial factors.

- **“Practice” medications** – Consider use of placebos or vitamins as “practice medications” to demonstrate readiness/lack of readiness for ART (the patient must be aware that these tablets are not ART). Not recommended for patients with CD4 <200, OIs, or co-morbid illnesses for whom ART is urgent.
- **Antiretroviral medications** – Be knowledgeable about HIV treatment alternatives and choose a regimen that is most appropriate for the patient considering his/her other medical issues, medications, and preferences. Individualize initiation of ART and continually reassess treatment adherence and effectiveness. Ensure access to medications that can be taken once or twice daily.
- **HIV specialist** – Partner with an HIV specialist through consultation or referral; if > 5 patients are HIV+, consider developing expertise in treatment of HIV/AIDS yourself. Optimally, HIV specialist should be part of the clinical team.
- **Simple regimen** – Prescribe the simplest, most effective ART regimen possible; once daily dosing is optimal, if clinically indicated. If prescribing TMP-SMX DS for PCP, one dose per day is preferable, but 3 times per week is acceptable. Don’t undertreat HIV or OI just because the patient is without stable housing.
- **Dietary restrictions** – Inquire about access to regular meals. If possible, prescribe medications without dietary restrictions.
- **Side effects** – Be more aggressive with unstably housed patients in treating side effects or changing medication, if an equally effective alternative is available.
- **Drug toxicities** – Be aware of serious toxicities associated with ART and evaluate for potential drug-drug interactions. Screen for HLA-B5701 before prescribing abacavir. Review symptoms of hypersensitivity with the patient.
- **Drug interactions/contraindications** – Monitor all patients on ART for development of glucose intolerance, diabetes, lipid abnormalities, lipodystrophy.  
**Methadone** – Be aware that NNRTIs and certain protease inhibitors can reduce methadone efficacy by as much as 50%. If protease inhibitor is indicated, use ritonavir boosting or work directly with methadone maintenance treatment program to adjust dosage upward. Recognize that successful adherence to methadone therapy for persons addicted to heroin can increase adherence to ART.  
**Other analgesics** – Be aware that some HIV medications can decrease/increase efficacy of pain medications, including narcotics. Work with the patient to understand underlying cause of pain; prescribe appropriate pain medication and document why you prescribed it.

To avoid contributing to drug-seeking behavior, make a contract with the patient specifying the plan of care and designating a single provider for pain prescription refills.

- **HIV treatment & substance use** – Prescribe medications compatible with substances used. If ART is desired and there is evidence the patient can adhere to the medical regimen despite substance use, suggest taking HIV medications before using other drugs.
- **Drug resistance** – Use genotype or phenotype testing to inform choice of therapy. Individualize therapy; balance possible side effects with simplicity and low resistance barrier with tolerability. Select initial treatment regimen to which the patient can adhere, preferring medications with a low pill burden where possible.
- **Adherence monitoring** – At every visit, ask how many doses of each medication were missed over the last week/month. Explore and address barriers to adherence. Problem solve with the patient; if forgetting doses is a problem, use pill boxes/watch alarms/other methods to help patient remember medications. Address adherence routinely so problems are identified before the patient develops resistance and fails regimen. (N.B.: CD4 decrease or viral load rebound is sign of treatment failure, very late stage marker of adherence.)
- **Medication storage** – Allow unstably housed patients to store medications at clinic as needed. If the patient does not have access to refrigeration, avoid prescribing medications that require it (e.g., ritonavir). Urge shelter staff to make stored medications easily available to residents.
- **Access to medications** – Assure continuous access to medications before initiating treatment. Provide transportation to pick up medications from clinic or pharmacy, or arrange for delivery to a reliable location acceptable to the patient.

### Associated problems, complications

- **Medication side effects** – Recognize that medications which interfere with survival on the streets by making people feel sicker or more fatigued will not be acceptable to unstably housed patients. Be more aggressive in treating side effects or changing medication for unstably housed patients if an equally effective alternative is available.
- **Severe drug toxicities** – Be aware of life-threatening complications of ART and how to manage adverse effects (e.g., medication hypersensitivity reaction, hepatic necrosis, Stevens Johnson Syndrome, pancreatitis, lactic acidosis). Avoid drug-drug interactions.
- **More acute illness** – Unstably housed people with HIV/AIDS often present with more advanced disease, exacerbated by OIs and other comorbidities. Provide/refer to medical respite facility where unstably housed patients can convalesce following hospitalization or when ill, or receive end-of-life care.
- **Co-occurring mental illness & substance dependence** – Treat co-occurring

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disorders simultaneously within the same program if possible, or coordinate care closely with other providers. Involve a psychiatrist knowledgeable about cumulative side effects of polypharmacy who is interested in assessment and management of HIV-infected unstably housed patients with behavioral health disorders.

- **Cognitive impairment** – If the patient has difficulty remembering appointments, don't assume non-adherence; assess cognition. Explore etiology of cognitive problems (e.g., mental illness, chronic substance abuse, AIDS-related dementia, OIs); seek accurate diagnosis with specialty consult if necessary.
- **Hepatitis** – Treat HCV/HBV in patients with co-occurring HIV. Consult a specialist. Be aware of association between antiretroviral drugs and hepatotoxicity; carefully monitor liver enzymes during ART. Abrupt cessation of antiretroviral medications that also treat hepatitis B may cause serious hepatocellular damage resulting from reactivation of HBV; patients should be advised against self-discontinuation and carefully monitored during interruption in HBV treatment. Seek psychiatric consult prior to initiating HCV therapy. For co-occurring alcoholism, use behavioral contract or other strategies concurrently with HCV treatment to promote sobriety and reduce risk of liver damage. When initiating ART in patient with HIV/HBV co-infection, consider including lamivudine, tenofovir, and emtricitabine as part of a fully suppressive antiretroviral regimen. Immunize against HBV (especially IDUs) if not already infected. Immunize seronegative patients against HAV. For better treatment outcomes, facilitate access to supportive housing and behavioral health care.
- **Tuberculosis (TB)** – Do more frequent TB screening of HIV-infected unstably housed persons. If tuberculin test or IGRA is positive, initiate isoniazid prophylaxis. Teach patient to report symptoms of TB disease and immediately evaluate for active TB disease if present. Use directly observed TB therapy to promote treatment adherence and reduce risk of drug resistant organisms if TB disease is present. Rifampin is not recommended in HIV infected patients receiving ART for treatment of latent TB or active TB, but rifabutin can be used with certain HIV drugs if appropriate dose adjustments are made.
- **Abuse** – Work with all service providers in clinics and shelters to protect unstably housed patients from physical assault and verbal abuse.
- **Pregnancy** – Educate and ensure access to contraception to prevent unwanted pregnancies: medroxyprogesterone acetate q3 mo/patch/pill as well as male condoms or alternative barrier methods (female condom, diaphragm if desired). Develop good consulting relationships and care coordination with obstetricians to help pregnant unstably housed patients with HIV. Facilitate Medicaid enrollment of infants born to HIV-infected mothers to expedite zidovudine therapy postnatally. When selecting an ART combination for pregnant women, clinicians should consider the known safety, efficacy, and pharmaceutical data on use during pregnancy for each agent.
- **Lack of transportation** – Provide transportation assistance/carfare to facilitate

appropriate follow-up care.

- **Lack of stable housing** – Strongly advocate for low-barrier subsidized housing in your community for people living on the streets or in shelters, with no pre-requisite to achieve sobriety or attain a level of stability before housing is offered.
- **Financial barriers to HIV care** – Facilitate applications for SSI/Medicaid or SSDI/Medicare. Seek Ryan White services for patients with no/limited health insurance coverage. Keep detailed records of functional impairments; secure representative to help patients apply for SSI/SSDI; develop working relationship with Disability Determination Services; ensure that consultative examinations are conducted by physicians with significant experience treating unstably housed patients. Advocate for all patients to obtain needed health care, regardless of insurance status.
- **Stigmatization** – Provide nonjudgmental, compassionate care and offer social support to unstably housed individuals, especially those with HIV/AIDS. Educate shelter staff about HIV/AIDS.
- **Incarceration** – Develop collaborative relationships with correctional facilities to assure appropriate discharge planning and continuity of care both during incarceration and following release.
- **Special populations:**
  - Women** – Offer social support and counseling to HIV-infected unstably housed women, many of whom have a history of abuse, can be harder to reach than men, and may require more intensive services.
  - Youth** – When discussing behavioral change with runaway/unstably housed youth, focus on immediate concerns rather than possible future consequences.
  - Sexual minorities** – Create a safe and nondiscriminatory clinical environment for HIV-infected GLBT patients; build trust and rapport; facilitate access to comprehensive health care and housing. Educate patients using injected hormones about clean needle exchange.
  - Immigrants** – Assure access to health care for unstably housed individuals HIV, regardless of immigration status. Provide linguistically appropriate and culturally competent health services. Alleviate patient concerns regarding being reported by HIV providers to immigration officials for deportation or other cultural concerns.
- **Follow-up**
  - **Contact information** – At every visit, seek updated contact information (telephone/cell phone numbers, mailing/email addresses) for the patient, a family member/friend with a stable address, shelter where the patient is currently staying, or other location where s/he might be found. Solicit nicknames used in various venues.
  - **More frequent follow-up** – Try to see or touch base with unstably housed patients every 1-2 weeks, especially early in the course of treatment. Reinforce the patient's

## HIV/AIDS Care for Unstably Housed Patients: Summary of Recommended Practice Adaptations

understanding of the plan of care repeatedly and ensure s/he has a voice in his/her care and treatment decisions. Be mindful that relationship-building is as important as primary care interventions. Ensure each member of the interdisciplinary team understands roles and relationships congruent to establishing long-term, consistent contact.

- **Drop-in system** – Encourage routine follow-up for established patients supplemented by an open-door policy for drop-ins (more effective than appointments for people whose lives are chaotic). Equip the system to provide all wrap-around care in “one stop shopping” model, not simply primary care.
- **Help with appointments** – Help patients make and keep clinical appointments and routinely remind them of appointments. Find out what their regular commitments are and at what time of day they can come to the clinic.
- **Incentives** – Provide a client advocate/peer/peer navigator to accompany the patient to appointments for services provided outside your clinic such as MRI, colposcopy, or ambulatory surgery. Provide incentives for every kept appointment or group meeting attended (e.g., carfare plus meal voucher).
- **Transportation** – Provide transportation to and from specialty referrals. Arrange to pick up new patients and those unable to come to the primary care clinic on their own. Work within the interdisciplinary team to balance need and services with developing patient autonomy and independence.
- **Outreach & intensive case management** – Provide medical outreach to unstably housed HIV-infected individuals on the streets, in shelters, drop-in centers or transitional/long-term housing for unstably housed people living with AIDS. Visit inpatients daily to reinforce engagement, facilitate discharge planning, and promote better follow-up and coordination of care.
- **Peer support** – Offer group activities to create positive peer support for patients having difficulty with ART. Create opportunities for group leisure or quality of life activities to develop or deepen support networks and promote a sense of self-worth.



## Introduction

The Centers for Disease Control and Prevention (CDC, 2012) estimate that 1.2 million people aged 13 years and older are living with human immunodeficiency virus (HIV) in the United States, with about 50,000 new HIV infections per year. An estimated 20% of people living with HIV infection have not been diagnosed (CDC, 2011). Among those without stable housing<sup>1</sup>, HIV infection rates are about three times higher than that of the general population (National Alliance to End Homelessness, 2006) and this rate increases in some specific subpopulations. In a meta-analysis of 43 studies conducted in the U.S., prevalence rates of HIV among those without stable housing were found to range from 0.3% to 21% (Beijer, Wolf, & Fazel, 2012) compared to the general population, which has an HIV rate of less than 0.1% (CDC, 2012). Estimates of HIV prevalence among unstably housed people vary, depending on variables such as the sampling methods used, the geographic area sampled, and the economic status of the area. However, compared with people known to be at highest risk for HIV infection—including individuals who engage in intravenous drug use and/or unprotected sex with infected partners—those without stable housing are more likely to be HIV-positive wherever they may live (Beijer, Wolf, & Fazel, 2012).

Along with higher HIV rates, people who are unstably housed are at risk of having higher rates of other chronic health problems, often compounded by limited access to preventive health measures or screening for disease in its earliest stages (National Alliance to End Homelessness, 2013). In addition, the logistical problems of living without stable housing, including exposure to the elements, nutritional deficiencies, and other lifestyle factors, can cause disease as well as exacerbate existing diseases (National Alliance to End Homelessness, 2006). Some live doubled up temporarily with friends or extended family, while others find shelter in their cars. Individuals living in shelters are commonly required to leave early each morning, with the doors opening again in the late afternoon. Waits in long queues are required to enter the shelter, obtain a bed ticket, and secure a meal. Tuberculosis (TB), hepatitis, pneumonia, skin infections, and other communicable diseases are common due to the high concentration of high risk persons (e.g., injection drug users or persons who have been incarcerated) spending time in the crowded, poorly ventilated, dormitory-style shelters often found in larger cities. While they wander in search of refuge during the days, unstably housed people are exposed to the extremes of weather and temperature. Fatigue and weakness are common constitutional symptoms that are magnified during the struggle to survive on the streets,

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<sup>1</sup> A homeless individual is defined in section 330(h)(4)(A) as "an individual who lacks housing (without regard to whether the individual is a member of a family), including an individual whose primary residence during the night is a supervised public or private facility (e.g., shelters) that provides temporary living accommodations, and an individual who is a resident in transitional housing." A homeless person is an individual without permanent housing who may live on the streets; stay in a shelter, mission, single room occupancy facilities, abandoned building or vehicle; or in any other unstable or non-permanent situation [Section 330 of the Public Health Service Act (42 U.S.C., 254b)]. An individual may be considered to be homeless if that person is "doubled up," a term that refers to a situation where individuals are unable to maintain their housing situation and are forced to stay with a series of friends and/or extended family members. In addition, previously homeless individuals who are to be released from a prison or a hospital may be considered homeless if they do not have a stable housing situation to which they can return. Recognition of the instability of an individual's living arrangements is critical to the definition of homelessness (HRSA/Bureau of Primary Health Care, Program Assistance Letter 1999-12, Health Care for the Homeless Principles of Practice).

especially for those who must carry all their worldly possessions during the daily journey. Their vulnerable residence on the streets also renders unstably housed persons prey to all manner of violence.

Despite their disproportionately high risk for HIV infection and transmission, unstably housed people have limited access to medical and social services, which delays the identification of HIV and comorbidities, impedes the resolution of behavioral disorders that interfere with HIV risk reduction and treatment (e.g., depression, other mental health conditions, and substance use), and accelerates progression to AIDS (Tucker et al., 2003). Many unstably housed people living with HIV/AIDS do not receive the quality of care that is optimal for managing this chronic disease. Challenges related to health care access – such as lack of transportation, insurance, or the ability to pay for medical care or treatment – are contributing factors in the higher prevalence of opportunistic infections (OIs) and other co-infections, including TB and hepatitis C, among HIV-infected people who are unstably housed. This population often relies on the local emergency department for medical care when symptoms can no longer be ignored, increasing morbidity and mortality risks for unstably housed people with HIV and creating a significant burden on limited community health care resources. Concurrently, advanced HIV disease can often further limit already scant housing resources (e.g., chronic HIV disease advancement can be accompanied by symptoms preventing autonomous ambulation needed for placement, prescribed treatment is not allowed due to their psycho-tropic nature, or pain medication not allowed due to its narcotic content).

Adherence to complex HIV treatment regimens presents special challenges for unstably housed people (National Alliance to End Homelessness, 2013; Kidder et al., 2007; Kushel et al., 2006; Moss et al., 2004; Clarke et al., 2003; Bamberger et al., 2000). Many unstably housed people lack regular access to food, water, and other resources needed to facilitate adherence. In addition, efforts to find a safe place to stay may take priority over a person's self-management of his or her HIV disease, including attending HIV appointments and taking needed preventative or curative treatment. Mental illness and substance use present additional challenges to developing and adhering to a plan of care. Although newer antiretroviral medications afford less complex treatment regimens, side effects, irregular schedules, and lack of basic needs remain significant barriers to adherence. Antiretroviral medications may have debilitating side effects, such as recurrent and often explosive diarrhea, yet public bathrooms accessible to unstably housed people are scarce. Some medications require refrigeration and must be taken with food, which presents additional barriers. Many of these drugs have a high value on the black market in some areas, and may be stolen or sold. All of these factors contribute to lower medical appointment and treatment adherence rates and subsequently increased morbidity and mortality among unstably housed than housed persons living with HIV/AIDS.

Nevertheless, there is promising evidence that treatment adherence and health status can be improved and community transmission of HIV infection and individual mortality can be reduced through access to stable housing and appropriate health and social services (e.g., outreach to engage the patient in care, appropriate treatment to achieve HIV viral suppression, and intensive case management<sup>2</sup> to facilitate

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<sup>2</sup> Intensive case management is characterized by assertive and persistent outreach, reduced caseloads, team structure, greater assistance accessing resources, and providing direct service rather than making referrals (Morse, 1999; Mueser et al., 1998).

retention and adherence to treatment) (National Alliance to End Homelessness, 2013; Kidder, Wolitski, Campsmith, Nakamura, 2007). While it is important to prescribe HIV therapy according to national HIV guidelines for unstably housed patients desiring treatment who have demonstrated regularity in their daily routines, it is just as important to insure the most effective alternative care (i.e., prophylaxis and treatment of comorbidities) for all HIV-infected patients not yet taking ART, including those with more chaotic lives who are unlikely to adhere to therapy or refuse ART. Social support and permanent supportive housing are essential components of HIV care for all patients who are unstably housed, many of whom lack family or friends to help them cope with the added stress of serious illness (Aidala, 2006).

Clinical practice guidelines for people with HIV/AIDS who are unstably housed are fundamentally the same as those for the stably housed. However, primary care providers who routinely serve unstably housed patients recognize an increased need to consider the patient's living situation, co-occurring disorders, and motivation to remain in HIV care and adhere to treatment when developing a plan of care. The recommendations in this guide were developed to assist clinicians who provide HIV care for unstably housed adults and adolescents by providing both evidence-based recommendations and practical suggestions for managing this population. It is our expectation that these simple adaptations of established clinical guidelines will maximize opportunities for these individuals to receive the optimum standard of care and decrease their morbidity, mortality, and risk of transmission to others.

#### **HIV TREATMENT CASCADE**

The vision for the National HIV/AIDS Strategy<sup>3</sup> states that: “The United States will become a place where new HIV infections are rare and when they do occur, every person regardless of age, gender, race/ethnicity, sexual orientation, gender identity or socio-economic circumstance, will have unfettered access to high quality, life-extending care, free from stigma and discrimination.”

To achieve this vision, patient engagement and retention in care must be improved, overcoming the breadth of challenges faced by those with or without stable housing. Poor engagement and retention in care limit the efficacy of test-and-treat strategies (Gardner et al., 2011). Gardner et al. introduced the concept of the treatment cascade (see Figure 1), which shows the spectrum of engagement, from becoming HIV-infected to being diagnosed as HIV-positive, linking to HIV care, retaining HIV care, needing antiretroviral therapy, receiving antiretroviral therapy (ART), and optimizing antiretroviral therapy. Throughout the cascade, points of vulnerability (or “leakage points”) stifle advancement to further stages of successful HIV disease management, resulting in a drop-off between each cascade. However, knowledge of these points of vulnerability can be anticipated and mediated by clinicians and their support teams to improve individual health outcomes and prevent the spread of HIV.

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<sup>3</sup> The National HIV/AIDS Strategy is available at: <http://aids.gov/federal-resources/national-hiv-aids-strategy/nhas.pdf>.

Therefore, throughout these guidelines, consider points in the treatment cascade where clinician efforts and provider network mobilization can demonstrably impact important aspects of the HIV/AIDS continuum of care. From identification of new HIV infection, to more effective linkage to care and services, retention within care and services, access to ART, and successful use of ART by patients, the entire provider network of those serving some of the most vulnerable among us can significantly impact many of these areas of vulnerability to pursue the end of AIDS.

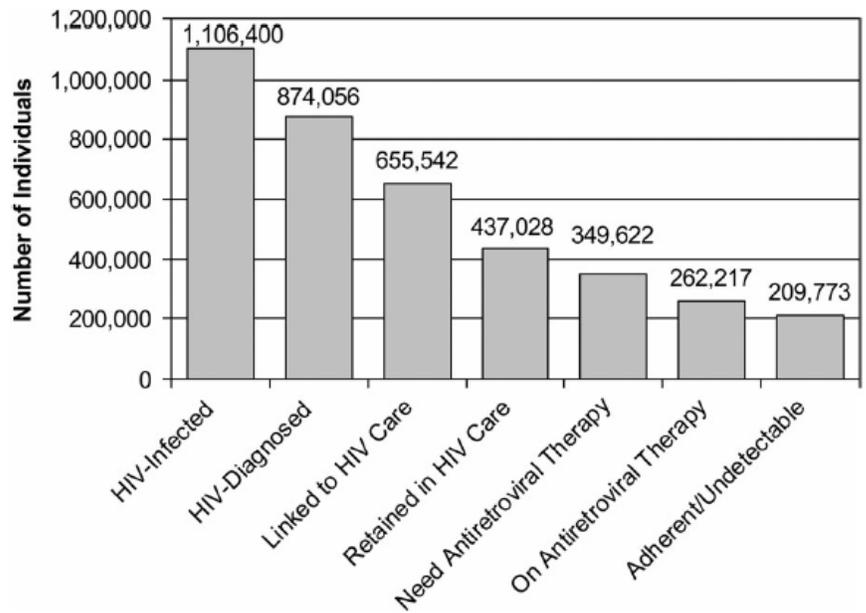


Figure 1: Stages of Engagement in HIV Care. Source: Gardner et al., 2011.

**CASE STUDY: UNSTABLY HOUSED MAN WITH HIV**

E.W. is a 50-year-old African American man who had been living on the streets of Boston, occasionally sleeping at a night drop-in center where a nurse practitioner (NP) from the Health Care for the Homeless program began to interact with him. Shy, reticent, and withdrawn, he gradually became more comfortable with the NP and complained of pain in his teeth when eating. He agreed to see the dentist at the HCH clinic, who noted oral thrush in addition to marked periodontal disease.

Over the next several months, the NP convinced this gentleman to come to the primary care clinic for HIV testing. When he was found to be HIV positive with a low CD4 count, he was admitted to the medical respite facility. The staff there worked with his primary care clinician to initiate HIV medications.

His response was excellent. He is now housed, volunteers at local AIDS agencies, and continues to have an undetectable viral load.

*Carole Hohl PA, Denise Petrella NP & James O’Connell, MD, Boston, Massachusetts*

# Model of Care

## SERVICE DELIVERY DESIGN

- **Flexible service system** Access to care for initial evaluation of HIV disease or ongoing treatment depends on the existence of a flexible service system that unstably housed individuals can use on a walk-in basis or through outreach workers. “One-size-fits-all” systems of care are inadequate to meet the complex needs of unstably housed people who may not be able to set appointments in advance, obtain transportation to the clinic, or prioritize routine medical care over their priority of finding daily food and housing. *Help to identify and resolve system barriers that impede access along the entire HIV care continuum from testing, linkage, long-term retention in care, and adherence to medications, recognizing that some barriers are not within the patient’s capacity to control.* Don’t focus on what the *patient* is not doing (e.g., on “noncompliance” with a plan of care); instead, look for positive steps you can reinforce with the patient and focus on what *service providers* can offer to enable unstably housed patients to obtain effective treatment, such as assuring service flexibility and providing appropriate medical and psychosocial assistance to anyone who walks into the clinic. Be creative, enlist the patient’s assistance, identify the patient’s support group (e.g., family, friends, case manager, or HIV-infected peers), and with his or her permission, utilize individuals in the support group to facilitate delivery of care.
- **Integrated, interdisciplinary model of care** Successful initiation and maintenance of HIV therapy requires a holistic, client-centered approach to care provided by an interdisciplinary clinical team, including social workers/case managers, medical providers, mental health professionals, peer advocates, and substance abuse counselors who share care planning and coordination. The patient is an essential member of this team, and their preferences and concerns should be elicited so that they are actively involved in their care decisions. Optimally, medical and psychosocial services should be easily accessible at the same location; fragmented service systems pose significant challenges for unstably housed people. Those with multiple and complex health problems need integrated or “wrap-around” services that are accessible from multiple points of service, outreach and engagement, and stabilization in short- and long-term housing. *Coordinate medical and psychosocial services across multiple disciplines and delivery systems, including the provision of food, clothing, hygiene items, housing, and transportation to service sites.*
- **Access to mainstream health care system** Ensure that all people with HIV infection have access to the mainstream health care system, including determining eligibility for insurance and HIV medication assistance and facilitating enrollment to obtain coverage where possible. Outreach workers, case managers, and peers can be used as system navigators. HIV care often involves multiple medical specialties, including infectious diseases, cardiology, hematology, nephrology, obstetrics/gynecology, psychiatry, neurology, dermatology, and pulmonary medicine. Full collaboration between primary care providers and specialists is essential to ensure effective treatment and management of co-morbid conditions commonly experienced by unstably housed individuals. *Network with community service providers who are sensitive to the needs of unstably housed patients to facilitate specialty referrals; assist with transportation and accompany patients to appointments.* Unstably housed HIV-infected patients are

particularly affected by health system and provider access problems, in addition to patient-specific problems such as mental health and substance abuse issues, lack of social support, and misconceptions regarding the management and effects of HIV disease. Treatment readiness is in part a function of the degree to which the mainstream health care system is accessible and welcoming to these patients.

## **ENGAGEMENT**

- **Outreach** *Use outreach workers, lay educators (promotoras), and peer advocates to locate hard-to-reach individuals and encourage them to engage in medical care or HIV support services. View each patient contact as an opportunity for medical and psychosocial evaluation, as well as to offer support and listen to their concerns or personal health goals. Offer diagnostic testing at outreach sites whenever possible. Remember that unmet basic needs may prevent a person from seeking health care. Promote engagement by including nutritious snacks and personal care items as part of outreach or facilitating enrollment in support services such as food assistance, housing or transportation assistance, and psychosocial services. Offer to bring patients to the grocery store or food bank, and use this as an opportunity to learn about their needs and do a psychosocial history. Unstably housed HIV-positive youth may be especially reluctant to seek care. Use a “roving case manager” or peer navigator to help them connect with available health and social services. Culturally appropriate and individually tailored approaches should be used to help young clients increase their knowledge about HIV and the importance of treatment and overcome challenges like fear of stigma/discrimination or treatment side effects. Work with religious leaders and faith communities (“health ministries”) to encourage their participation in outreach activities where appropriate.*

*Maintain a consistent presence in places where unstably housed people congregate and become a trustworthy member of their community; fulfill any agreements negotiated with unstably housed persons. Be mindful that when you approach an unstably housed person you are essentially entering his/her home. Find creative ways to seek permission to enter that home and respect the person’s right to decline your request. Maintain a supportive, non-judgmental, and willing attitude to facilitate productive communication and put unstably housed persons at ease during your visit. Many patients are “referred” to outreach workers by another patient who has found the outreach worker to be respectful, reliable, and trustworthy.*

- **Clinical team** *Nonjudgmental and supportive patient interactions with all members of the clinical team are essential to successful engagement. The team should include professionals and paraprofessionals with strong engagement skills who make themselves available to listen to patients and help them address obstacles to care. This is especially important for unstably housed people who experience extreme social isolation and may have no one else to listen to their concerns. A team member with strong engagement skills should see the patient first. Often that team member will need to “lend” his or her relationship with the patient to other team members via joint visits. Specifically address psychosocial barriers to health as well as medical issues, employing an intensive case management model.*
- **Therapeutic relationship** *Successful HIV care requires effective engagement skills to meet medical as well as psychosocial needs of the patient. Engagement of people who have been alienated from traditional health care systems is most successful when it involves building mutual trust between client*

and provider. Recognize that *caring for unstably housed patients is as much about building relationships as about clinical expertise*. Spend time getting to know your patients; listen to their concerns in a non-judgmental manner and engage with their interests. Allow the patient to have a voice in his/her care and avoid forcing your preferences on a patient who may not be ready to accept care or treatment. Find common ground and build success in small steps, such as willingness to attend one more clinic visit, accept a vaccination, or practice pill-taking using placebos or vitamins. Both the quality and frequency of encounters are important in building a therapeutic relationship with unstably housed people. Realize that *positive encounters with the same provider over time facilitate engagement*.

Be aware that *engagement of unstably housed patients often takes a long time*. Small, brief conversations may be all a person can tolerate at first, but the length of an encounter will grow as the patient's comfort level increases. Additionally, there is evidence to support that even brief interventions can effectively promote readiness to change behavior or accept treatment (SAMHSA, 1999). Often clinicians presume that a person isn't interested after they fail to get very far in one or two contacts. Be patient and persistent; listen well. Measure success in very small increments. For weeks a patient may only accept a sandwich from the provider; one day s/he may allow a blood pressure check while getting a sandwich. This is success.

*Take good care of professional staff to promote provider retention and enable continuity of patient care*. It is stressful for dedicated providers when they feel an urgency to address a patient's medical needs but are unable to do so because the therapeutic relationship has not matured sufficiently from the patient's perspective. Provide consistent and meaningful supervision and ongoing training for new *and* seasoned providers to promote effective provider-patient communication, relationship-building, and feelings of self-efficacy for both the provider and patient. For providers conducting field-based activities, proactively consider potential safety issues unique to the outreach setting where assistance is not always close at hand as it is in fixed site clinic settings. Provide crisis de-escalation training for all providers and require them to carry cell phones when providing services in the community. Provide support without question for those staff who may experience a "gut intuition" or more obvious evidence that engaging a person experiencing homelessness is not safe at that time. Doing so creates safety for all involved and preserves the potential for future positive interactions. Encourage debriefing and other wellness activities for individual providers as well as in team settings. Develop creative ways to recognize and celebrate small successes along the way. Well tended staff will stay with your program and will have the inner resources to engage the most difficult of patients.

**CASE STUDY: UNSTABLY HOUSED ADOLESCENT WITH HIV**

When E. presented to our program, she was a 16-year old Puerto Rican female with a history of running away from home and sexual activity since around age 11. E. had been tested for HIV in a Staten Island clinic because she thought she was pregnant (she was not). Although newly diagnosed with HIV, her CD4 count was 132 and her viral load was over 100,000. She denied sexual abuse. Her father subsequently died from advanced HIV. Her mother has tested negative for HIV. E. was in touch with her family, but was a most elusive young woman who lived transiently with various boyfriends, her father, her mother, and on the street. She was the tenth of 11 children and had an open ACS (Child Protective Services) case.

Although there were clear medical indications for ART, because of E.'s elusiveness and transience, we decided not to prescribe antiretroviral medications at that time. She understood the need for medications, but was unable to maintain consistency with anything in her life. She could not even safely adhere to PCP prophylaxis. Our goal was to engage her in our program and provide her with a place to go that was safe and supportive. My goal as her primary care provider was to keep her out of the emergency care system by teaching her to identify symptoms of illness and access medical care early in the course of illness rather than waiting until her health condition had deteriorated.

Initially, E. required our assistance in applying for health insurance. This was difficult because she was an unsupervised minor with no income or stable residence. We also worked on disclosure of her illness to her family and attempted to engage E.'s mother in her daughter's care. We accomplished this in collaboration with her ACS workers. E. was eventually able to obtain housing through the Division of AIDS Services, but not until after her 18th birthday. She was unable to keep this housing, however, because of her violent relationship with a male partner and her inability to pay bills and maintain herself independently in the community.

Through extensive outreach, we maintained contact with E. over several years. At age 20, she became pregnant. She now lives in a rooming house above one of her sisters. She started ART during her pregnancy and claims to be adhering to the treatment regimen. Her viral load was undetectable for a period, but then rebounded. It is unclear whether E. takes her medications consistently or not. Her baby, born by C-section, is HIV negative. E. has learned to come to clinic appointments on time and is able to identify symptoms of her illness. She calls me frequently and seems to be taking adequate care of her baby. This patient is one of many transient, runaway teens we have seen in our clinic with HIV infection possibly secondary to early sexual abuse, low CD4 counts, and high risk for perinatal transmission.

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# Diagnosis and Evaluation

## DOCUMENTATION

- **Thorough Documentation** Fragmented care (i.e., services provided by multiple providers not coordinated by a single case manager or primary care “gatekeeper”) may contribute to incomplete and inaccurate information and the poor quality of medical care and health outcomes of unstably housed individuals. *Careful documentation of medical care and other services provided to a patient and direct communication between providers are necessary in order to optimize coordination of care and patient safety.* Releases of information and patient consent to share medical records should follow state regulations. Communication with other providers of care obtained verbally or via written documents should be incorporated into the specific patient’s medical record. Careful documentation will help to deliver high quality care in a safe and effective manner, particularly in emergency settings where accurate medical treatment history can facilitate effective treatment and decrease morbidity and mortality.

## HISTORY

- **Review of systems** *Identify symptoms that suggest the presence of OIs requiring immediate intervention, like reports of memory problems, visual changes, genitourinary pain or discharge, dysphagia, and cough.* Also assess the patient for symptoms of itching or new skin lesions, neuropathy, diarrhea, body changes, etc. which could indicate co-morbid conditions or medication side effects. Chronic symptomatology such as weight loss, increasing fatigue, fevers/night sweats, cognitive dysfunction, etc. should be elicited and the patient should be questioned regarding duration and prior evaluation or treatment of their reported symptoms.
- **Current living situation** Because of the significant way that lack of stable housing complicates health care and adherence to HIV treatment, *document the patient’s housing status, living conditions, and contact information at every visit.* Assess residential stability by inquiring, “What is your current living situation? How long do you think you can stay where you are staying?” If living on the streets, ask for how long. “Where did you stay last night and where do you think you will stay tonight?” “Do you have access to shelters?” “What is your experience with shelters?” (Some patients feel safer camping outside than staying in crowded shelters; others don’t want to separate from partners, as most shelters require.) *Ask where the patient spends time during the day and how s/he can be contacted. Obtain the contact information of another person who may be able to help the provider reach the patient if needed. Inform the patient how to contact the clinical team. Ask explicitly how basic needs are met (food, shelter, restrooms) and where medications can be stored. Assess the safety of the patient’s housing situation and provide assistance where possible.*
- **History of homelessness** If the patient is staying in a shelter, a vehicle, on the street, or in any other unstable living situation, *ask if this is the first time he/she has been without a home.* Recognize that living with a series of friends or family members (“couch surfing”) or in overcrowded situations with multiple families may also indicate residential instability, which is fundamental to homelessness. If there were previous episodes of homelessness, *try to determine whether lack of a stable living situation is transitional, episodic, or chronic* (Kuhn & Culhane, 1998; National Health Care for the Homeless Council, 2013).

Individuals who have been unstably housed for a long time tend to have established routines in seeking to meet basic needs, whereas those who are recently unstably housed may present as less organized and may not be aware of available resources. Assess the patient's resourcefulness by asking what changes enabled him/her to obtain housing or shelter. If currently without stable housing, *try to understand the circumstances that precipitated homelessness* (e.g., unemployment, bad luck, poverty, abuse, alcohol or drug problems, mental illness) *and inquire about options for stable housing that might be acceptable to the patient.*

- **Social history** Lack of social supports, stable housing, and other unmet basic needs can present serious impediments to maintaining reliable communications with caregivers and can contribute to poor retention in medical care and adherence to treatment. Obtain a detailed social history; *ask about the patient's family, extended family, and current social supports* (living parents and siblings, marital history or partners, ongoing relationships) to determine the patient's degree of isolation. Many unstably housed persons with HIV aren't in touch with family members or friends. *Ask for an emergency contact, and ask for who might make decisions in the event of serious illness requiring hospitalization.* When trust is established, begin to *lay the groundwork for a discussion of advance directives and end-of-life care.*
- **Regular activities** Understanding how the patient spends time each day will help service providers identify and address potential barriers to care. *Ask if the patient has any sort of schedule or daily routine* ("How many times do you eat each day? How many meals did you eat yesterday? Do you get up at a certain time? Go to the same places or engage in particular activities every day?"). *Explore evidence of consistency in the patient's life to assess whether a medical regimen can be integrated into his/her regular schedule of activities.* Ask what activities the patient most enjoys and which of these activities are possible under current circumstances. Improving quality of life can help to increase motivation and capacity for self-care. Many unstably housed people spend much of their time in lines for food, shelters, or appointments.
- **Medical history** Obtain a list of all medical conditions (including OIs) for which the patient has been treated, their current medical conditions and current medications. *Ask if the patient has ever been hospitalized and if so, why.* Request a release of medical information and obtain medical records from hospitals and other clinicians to gather information about prior diagnoses and treatments. Obtaining complete medical records may be difficult for migrant and highly mobile patients. *If a diagnosis of HIV infection has already been made, ask when the initial diagnosis was made and how s/he became infected.* Health departments can share information about HIV patients to facilitate coordination of care and partner investigation, but this information cannot be shared with another provider without the patient's written permission. Knowing the likely route of infection may facilitate harm reduction. *Inquire about the patient's initial, lowest, and most recent CD4 counts, last viral load, and if the patient has ever achieved HIV viral suppression.* *Ask if s/he has ever taken medications for HIV, which ones, and for how long.* *Ask if the patient is currently receiving ART and/or OI prophylaxis; inquire about side effects and reasons for any changes in medication or discontinuations.* If medical records and patient recollection are insufficient to identify specific medications taken, ask if the patient can show you old prescriptions or medicine bottles. If the patient has been off medications for a while due to interruption of previous health services, try to contact

the pharmacy that last supplied medications. *Ask if the patient had a positive tuberculin test (palpable induration of at least 5 mm on their forearm 2-3 days after the test), has been exposed to anyone they know who had TB, or received treatment for latent or active TB, when and where. Note that some foreign-born persons may confuse having had the BCG vaccine in their upper arm with the tuberculin skin test placed on the inner forearm. Contact the treating facility to confirm that treatment was completed. Ask about a history of/exposure to hepatitis through sex or injection drug use and sexually transmitted diseases (syphilis, gonorrhea chlamydia, herpes). Ask about vaccinations, including the hepatitis A and B series, pneumonia, and tetanus. Ask female patients when the last Pap smear was performed and obtain a history of any previous Pap smear results as well as treatment.*

- **Previous providers** Unstably housed patients may see a series of providers in different programs or settings. *Ask why the patient is changing services and/or providers and what his/her expectations are. Obtain a medical release from the patient and contact the prior medical provider to discuss the transfer of care and specific issues and to avoid duplication of services.*
- **Behavioral health history** *Ask whether the patient has ever been treated or hospitalized for a mental health or substance use problem and whether s/he is currently taking medications for depression, anxiety, or other mental health conditions. Obtain information and contacts for past and current treatment. Assess for depression and bipolar disorder; evaluate mood, cognitive function, and general outlook. Ask about major stressors and coping mechanisms. If a resource is available, ask if s/he is interested in counseling support or psychotherapy. Encouraging a person to talk about his or her life may provide insight into emotional status and priorities, allowing the clinician to understand the patient better.*
- **History of abuse/current risk** Many unstably housed people have experienced physical and/or sexual abuse (Henny, Kidder, Stall, & Wolitski, 2007). Some have been “self-medicating” with alcohol or drugs for most of their lives to alleviate the residual effects of trauma (post-traumatic stress disorder). These activities may increase their risk for HIV infection. Assess for a history of emotional, physical, or sexual abuse and exploitation; *ask all patients if they have ever been physically hurt, afraid of being hurt, or forced to engage in sexual acts. Sexual victimization is not limited to women, although high percentages of poor and unstably housed women have been victims of physical or sexual abuse (Lee & Schreck, 2005; Wenzel, Leake, & Gelberg, 2001; Browne & Bassuk, 1997). Routinely assess for violence, abusive relationships, and patient safety (including whether other persons’ knowledge of HIV infection may precipitate abuse against the patient or a partner).*
- **Alcohol/drug use** *Ask about current and previous use of alcohol and drugs, including nicotine. Obtain information about current and past drug treatment. Inquire about drug(s) of choice, including inhalants, recognizing that many users have tried several psychoactive substances. Ask about frequency and pattern of use. Some patients tend to engage in binge drinking or drug use while others are daily users. If engaging in intravenous/injection drug use (IDU), ask about injection practices and access to clean needles. Ask whether the patient has ever experienced blackouts or had seizures. Asking questions in a natural, nonjudgmental manner establishes rapport and makes it easier for patients to talk about substance use – e.g., “When was the last time you used/got high? On what? How do you get high (injected, smoked*

or snorted)? Have you ever been in a drug treatment or smoking cessation program? If so, what was the outcome? What is the longest period you have been clean and sober?" *Ask how periods of sobriety were achieved*, and use this information about past success to help guide subsequent interventions and treatment planning.

- **Sexual history/current practices** *Ask about specific sexual practices that may place the patient or sex partner(s) at risk for HIV infection. Ask whether the patient has sex with men, women or both. Ask the same questions of both males and females in a nonjudgmental way. Recognize that some sexual activities are not regarded by all persons as "sex." Ask whether the patient has been forced to have sex. Ask whether he or she is currently using contraception. Ask about condom use, including if the patient has regular access to condoms and how he/she obtains them (other forms of contraception do not confer protection against HIV transmission).*
- **Reproductive history** *Ask female patients about past and/or current pregnancies (number of pregnancies, live births, terminated pregnancies, and stillbirths) and any complications, such as preterm birth or eclampsia. Ask HIV-infected women if any of their children were HIV-infected, whether they received drugs during pregnancy to prevent perinatal transmission of HIV (antiretroviral prophylaxis), and if so, which ones. Ask about birth control practices and desire for family planning.*
- **Work history** *Ask what types of work the patient has done and the longest time s/he held a job, to identify abilities and interests, assess stability, and determine risk for comorbidities associated with toxic exposure (e.g., to asbestos, silica, coal). Inquire about work-related illness or injuries and military service.*
- **History of detention/incarceration** *Ask whether the patient has been detained by police or incarcerated, and if so, whether s/he ever received medical treatment while incarcerated. Housing options may be closed to previously incarcerated people. A history of incarceration is associated with increased risk for HIV and hepatitis (Weinbaum, Sabin, & Santibanez, 2005). Admission to/discharge from criminal justice facilities may interrupt continuity of care, access to medications, and treatment adherence. In many communities, when unstably housed persons are arrested, even for a public nuisance offense such as loitering or public urination, any medications they have with them may be confiscated and not returned. Establish a working relationship with health care providers at local jails to promote continuity of care. Address the risk of drug overdose after release with patients using drugs (especially heroin) who have a history of detention or incarceration.*
- **Literacy** *A number of unstably housed people have trouble reading. They may be illiterate or have a low literacy level in their primary language and/or in English, if it is not their native tongue (a patient may speak but not read English while being literate in Spanish, for example). Many patients who are literate may still have a problem with health literacy (i.e., a limited ability to obtain, process, and understand basic health information and services needed to make appropriate health decisions and follow instructions for treatment) (Weiss, 2007). Providers can most readily improve what patients know about their health care by confirming that the patients understand what they need to know and by adopting a more patient-friendly communication style that encourages questions. Assuming*

erroneously that the patient can read directions on medicine bottles or an appointment card can lead to serious complications and loss to follow-up. Patients who cannot read may not volunteer this information out of embarrassment or shame. *Use the intake form as a non-threatening way to evaluate the patient's ability to read instructions in English or their primary language. Ask, "Do you want help filling this out?" "Are you comfortable reading?" or "Do you have trouble reading?" This allows patients to save face, since "trouble reading" can indicate either vision or literacy problems. Ask the patient to teach back to you the most important health information you have given them, such as what medications they will be prescribed and how they need to take them.*

- **Nutrition/hydration** Poor nutrition and inadequate hydration are endemic among indigent and unstably housed people. Even those who are overweight are at high risk for malnourishment because of diets high in fat, salt, and simple carbohydrates and low in healthy nutrients, vitamins, and minerals. All patients should have an initial nutritional assessment. Special attention to nutritional status and intake is especially important for pregnant patients. *Look for signs and symptoms of malnutrition and dehydration. Ask about diet and eating habits. Evaluate the patient's knowledge of proper diet and food resources (pantries, soup kitchens, delivered meals, and nutritional supplements including vitamins), as well as cooking skills and availability of cooking facilities. If the patient is not eating well, determine the reasons why—e.g., limited access to nourishing food, poor dentition, use of financial resources to purchase illicit drugs/prescribed medications or shelter instead of food. Inquire about access to water and other liquids, especially in summer months; adequate hydration is necessary to avoid some medication side effects.*
- **Community** *Elicit information about the patient's cultural heritage and religious or spiritual history and affiliation. This information can help the clinical team develop an approach to care that is responsive to the patient's belief and value system. Some patients who are difficult to follow can be contacted through faith communities with patient consent to avoid unwanted disclosure of HIV infection. Ask about attitudes of the patient's family, friends, community, and cultural group toward HIV risk behaviors and persons who contract the virus. Stigmatization of HIV-positive persons is more severe in some cultures than others. For example, in some communities it is more shameful for Latino males than for other unstably housed men to admit certain behaviors that increase their risk for HIV. Consequently, they may not seek screening as readily as other clients.*

## **PHYSICAL EXAMINATION**

- **Comprehensive versus focused examination(s)** Patients with a history of sexual abuse or negative experiences with the medical system may take more time to engage in a therapeutic relationship. *For such patients, focused physical examinations may be necessary initially, especially in outreach settings; reserve comprehensive examinations for the clinic with appropriate privacy and space. To enhance patients' comfort level, some medical providers promote informality by dressing casually and inviting patients to call them by their first name. If the patient prefers not to disrobe at the first visit, conduct serial, focused examinations (e.g., examine the patient's feet, listen to his or her chest) and defer routine genital examination until the patient's comfort level allows, especially for a young adolescent or if a history of*

sexual abuse is suspected (note that this may be required at early visits if the patient has genitourinary signs or symptoms or reports contact to a person with a known STI). Sensitivity to the patient's needs will promote trust and make her or him more at ease at subsequent visits.

***Pelvic and breast examinations of unstably housed women*** Women with HIV infection have higher rates of cervical dysplasia, human papilloma virus, and vaginal candidiasis than do women without HIV infection. Unstably housed women with a long history of physical/sexual abuse often resist routine pelvic and breast exams, exacerbating their risk for negative outcomes (O'Connell and Lebow, 1992). *Whenever possible, offer female patients the option of being examined by a health care provider of the same sex. To decrease anxiety, explain the importance of a vaginal examination and discuss the procedure before examining. Never uncover or touch the patient without asking permission first.* Some patients are more comfortable entering the examination room if a friend or case manager accompanies them. Clinicians should be aware of possible physical or sexual abuse and include routine assessment of unexplained bruises, cuts, and other injuries. The physical examination should include careful inspection of the vulva, vagina, and rectum. Routine cervical Pap smears will detect cervical dysplasia and carcinoma *in situ*. Early detection and intervention are critical to avoid progression to cancer. Screening for STI should also be routinely conducted during pelvic exams for HIV-infected women. Women of child-bearing age should also be examined to determine if they are pregnant. If so, try to determine the gestational age of the fetus and assess for possible complications of pregnancy; refer to obstetricians with HIV expertise. Women over age 50 should receive mammograms.

***Sexual minorities*** Unstably housed people with a non-traditional sexual orientation or gender identity (gay, lesbian, bisexual, or transgender) experience even greater obstacles to health care than do other unstably housed people, and may not have seen a primary care provider for years. Many clinicians are uncomfortable examining individuals whose gender expression diverges from cultural norms and are insensitive to their specific health care needs (Herbst et al., 2008). *Be aware that: a biological male taking estrogen needs to have mammograms; a female taking testosterone still requires a Pap smear, breast exam, and mammograms; patients who have had sexual reassignment surgery require genital examination as part of regular health care maintenance; and any patient with a silicon or other implant, regardless of gender or sexual orientation, should receive both physical and radiological examinations.* As with all patients, listen to concerns nonjudgmentally. Treat each client as a unique individual and *provide respectful, compassionate care.* Be mindful of the desires and wishes of the patient. For example, a masculine female to male transgender patient may decline having a Pap smear or a mammogram. Documentation should include the discussions and the agreed upon treatment plan.

- **Touch therapy** Many unstably housed persons with HIV have not been touched for a long time and may be shunned or physically/emotionally abused by others if their HIV status is disclosed. Shake hands to ameliorate the patient's sense of being an "untouchable" because he or she is dirty or has HIV. *Do not hesitate to express empathy with appropriate physical contact (hand shake, shoulder touch); but pay attention to nonverbal signals and recognize that some patients, particularly those experiencing paranoia, may find physical contact threatening, even outside the examining room.*

- **Signs & symptoms of HIV** Recognize the signs and symptoms of HIV complications and a failing immune system, including *oral candidiasis (thrush), oral leukoplakia, shingles, dermatitis, weight loss, cough, chronic diarrhea, dementia, vision loss or changes, and recurrent fevers*. Realize that HIV-infected persons who are unstably housed are at higher risk for some of these conditions (e.g., TB and bartonellosis) than are those with stable housing. Weight loss and dehydration can be hastened or exacerbated by homelessness, and HIV symptoms may be difficult to differentiate from comorbidities in multiply diagnosed patients. Change in mental status may be secondary to chronic mental illness/substance abuse, OI, and/or neurological changes associated with AIDS. *Always obtain full vital signs, including weight and pulse oxygenation.*
- **Dermatological exam** Thoroughly examine the patient's skin and oral mucosa on a regular basis. *Look for skin growths, rashes, and fungal infections in the mouth, groin, and feet.* Due to heavy sun exposure experienced by many unstably housed persons, *routine screening for signs of skin cancer* is also necessary. *Be aware of medications that precipitate sensitivity to sun exposure (i.e. sulfas drugs) and encourage sun block use, as possible.* Dirty skin may complicate the assessment, as many unstably housed people have no place to bathe. Due to poorly fitting shoes and minimal access to clean socks and water for bathing, foot problems (*tinea pedis, fungal infections, "trench foot"*) are commonly seen in unstably housed patients. Rule out HIV disease in any patient with oral candidiasis ("thrush"), which is usually a sign of immune compromise (not secondary to homelessness). Eosinophilic folliculitis (EF) is the most common skin disease seen in HIV-infected persons. Many skin diseases such as seborrheic dermatitis are exacerbated by HIV. Skin infestations like scabies and "bed bugs" are extremely common (HCH Clinicians' Network, 2006). Peripheral vascular disease and venous stasis are more difficult to manage if the patient is unstably housed. Corns, blisters, and skin ulcers are other common problems that can even lead to more serious skin infections if not treated appropriately. *Pay special attention to genital and rectal warts, skin problems associated with injection drug use, and foot care.*
- **Neurological/psychiatric evaluation** Perform a thorough neurological examination and mental health evaluation as the patient's comfort level allows. Recognize that depressive symptoms are associated with discontinuation of ART (Kim et al., 2007; Moss et al., 2004). It is often necessary to explore only briefly at the first encounter and continue the evaluation at subsequent visits. *Ask whether the patient has had any "mental health issues" rather than "mental illness."* If such mental health problems are suspected, ask if the patient would like an appointment with someone (preferably a mental health professional on the clinical team) to discuss his or her concerns further. *Assess for mental illness, substance abuse, and evidence of cognitive impairment. Screen for domestic violence and post-traumatic stress disorder.* Effects of HIV on the central nervous system may be confused with those of substance use, psychiatric disorders, or medication side effects. HIV infection and treatment can also trigger and exacerbate underlying mental illness. Be aware that the first signs and symptoms of serious mental illness can be secondary to AIDS dementia, CSN infection, or lymphoma. People with underlying psychiatric disorders, especially PTSD, may be self-medicating with alcohol or street drugs; it is important to explore this during the mental health evaluation. HIV-infected patients with these conditions may also require more intensive, specialized management to ensure retention in care and adherence to treatment.

- **Dental/retinal exams** Dental problems secondary to HIV are difficult to distinguish from bad dentition due to poor hygiene in unstably housed individuals, whose access to oral health care and vision care is often limited. *Make every effort to include a dentist on the clinical team, as well as an optometrist or ophthalmologist to do retinal exams.* If your team does not include a dentist or eye specialist, help the patient identify resources in the community where they can obtain free dental or eye care or financial assistance for needed dental or ophthalmologic services. Portable equipment allows for dental outreach in homeless service sites.

## **DIAGNOSTIC TESTS**

- **HIV testing/screening** Standard clinical guidelines currently recommend HIV screening in all health care settings without requiring written consent (CDC, 2006a). Two forms of rapid testing have been shown to increase patient willingness to be tested: the *oral swab rapid test* and a *finger-stick whole blood assay*; both demonstrate comparable specificity and sensitivity with proper use. *Rapid testing is especially useful in outreach settings and strongly recommended for unstably housed/runaway youth.* Persons at high risk for HIV infection should be tested at least annually. *Offer testing to partner(s) of HIV-positive patients; provide an incentive (e.g., grocery store voucher) to those who bring partners for testing. Offer testing to children of HIV-infected persons, if not already tested, regardless of age.*

Facilities that provide only outreach and HIV testing must provide direct linkage to HIV care providers and assertive case management to assure that unstably housed individuals will have access to care. Passive referral such as providing names of local HIV providers is not nearly as effective for engaging newly diagnosed patients in care as active referrals where an appointment is made for the patient or an outreach worker or other person transports or accompanies the patient to their initial appointment. Mobile units can be an effective means of outreach to persons who otherwise would not seek testing or care, including those who are unstably housed. Optimally, mobile units should include a medical provider to initiate contact and establish rapport with new patients. Mobile testing programs should provide immediate referrals to an HIV clinic for patients who test positive. *Engagement in clinical care, prevention counseling, and supportive services is essential for persons with positive HIV test results – even if the patient is not ready for HIV therapy – to provide emotional support, reduce HIV transmission, and initiate prophylaxis, if needed.*

- **Pre-test counseling** Prevention counseling should not be required as part of HIV testing programs in health care settings, but is strongly encouraged for high-risk persons in settings where HIV risk behaviors are assessed routinely, such as STI clinics (CDC, 2006a). *Give patients the option to decline an HIV test (opt-out screening), but invite them to ask questions and receive information about what the test means.*
- **Confirmatory test** A negative HIV screening test does not require further testing (although retesting is recommended for persons with known or possible exposure to HIV within the last 3 months), but a positive test should be confirmed before the individual is told that he or she is infected. *If an initial screening test (oral mucosal, rapid test, or standard blood test) is positive, do a confirmatory test (Western blot or immunofluorescence assay) (CDC, 2006a).*

- **Post-test counseling** *Be sure the patient is engaged in care when a positive test result is communicated. For some patients, having HIV test results immediately is clinically necessary. Receiving an HIV diagnosis is as devastating to someone who is unstably housed as to someone who is not. Be personally available when the patient returns for test results, and maintain contact with him or her. If the test result is positive, listen to the patient and be sure that contact with medical and social care is made. Use peer counselors (HIV-infected unstably housed or formerly homeless individuals who have done well) to talk to the patient and provide social support. It often takes multiple interactions with a patient to help him/her accept the HIV diagnosis and understand what type of care is needed, what resources are available, and address the patient's questions and concerns. For unstably housed patients, it is particularly important to obtain accurate contact information to facilitate continued outreach to encourage timely linkage to HIV care.*
- **Laboratory tests** *Perform baseline laboratory tests as specified in standard clinical guidelines (DHHS, 2013), including a CBC, electrolytes, glucose, BUN and creatinine, liver function tests, lipid studies, urinalysis, toxoplasmosis gondii IgG antibody, RPR or VDRL, hepatitis A antibody total (Hep A, Total), hepatitis B surface antibody (HBsAb), hepatitis B surface antigen (HBsAg), and hepatitis C antibody (Hep C Ab). Perform diagnostic tests at the first visit and review lab results at the next encounter. Counsel the patient regarding the importance of returning for their test results and further evaluation and what to expect at their next visit to decrease the risk of loss to care. Pay more attention to liver function tests in an unstably housed patient, whose risk for liver damage (secondary to hepatitis, alcoholic cirrhosis) is high. Patients on hormones should also have regular monitoring of liver functions.*
- **HIV Viral load** *Perform HIV viral load test (e.g., HIV-1 RNA quantitative assay or branched chain DNA assay (bDNA)) at baseline exam and every 3–4 months if the patient is stable on therapy. Also, check HIV viral load when acute retroviral syndrome is suspected. This recommendation depends on the prevalence in the area. Providers in high prevalence areas are opting to check the HIV RNA immediately after a positive rapid test.*
- **HIV-1 Resistance testing** *Baseline genotypic resistance testing is recommended for all patients prior to initiation of ART and for treatment failure with HIV-1 RNA levels of more than 500–1000 copies/ml while patient is taking failing regimen (DHHS, 2008; Thompson et al., 2010; see <http://aidsinfo.nih.gov/guidelines> for up-to-date information). Phenotypic assays are used in combination with genotypic assays for patients with multidrug resistance. Many unstably housed patients are treatment-naïve due to limited access to health care and may therefore have more therapeutic options because of less resistance due to past treatment failure. Nevertheless, since 6–16% of HIV-infected persons naïve to treatment have at least one major resistance mutation in their wildtype virus, resistance testing is still an important component of initial evaluation when planning to start ART.*
- **HLA\*B-5701 testing** *Test all patients for HLA\*B-57 prior to initiating an abacavir containing regimen (if assay is available; see <http://aidsinfo.nih.gov/guidelines> for up-to-date information). Any patients testing positive for HLA\*B-57 should not be prescribed abacavir as they have a 50% chance of having severe hypersensitivity reaction to the medication.*

- **Screening for active and latent TB** Screen all HIV-infected persons for active TB as soon as their HIV diagnosis becomes known by asking about symptoms of cough, weight-loss, fever, night sweats, or lymphadenopathy. HIV-infected persons have a significantly increased risk of developing TB, and they are more likely to have unusual presentations of pulmonary TB and extra-pulmonary disease (Luetkemeyer, 2013). HIV-infected patients with pulmonary symptoms should have immediate evaluation with a chest radiograph, sputum smear and culture, and will require isolation from others if TB is suspected. Realize that a negative chest X-ray does not rule out active TB, including non-pulmonary TB, in an HIV-positive patient. Once active TB is ruled out, *test HIV-infected persons for latent TB using a Tuberculin Skin Test (TST/PPD) or blood assay test (QFT-g)*. A blood assay test can be used in all circumstances in which the TST is used but does not require the patient to come back for a reading. Its limitations are similar to those of the TST (DHHS, 2005). Although standard practice guidelines recommend annual repeat testing of high-risk patients who have negative tuberculin tests on initial evaluation (DHHS, 2005), *a number of HCH practitioners recommend testing unstably housed patients more frequently because of their higher risk for contact with active TB and unpredictable follow-up. For high-risk patients with a negative test result, re-check every six months; for patients who test positive, do a baseline chest X-ray and encourage treatment of LTBI to prevent future TB. If HIV-infected unstably housed persons do not complete a full course of LTBI therapy, they should have a symptom screen every six months, but repeat testing with the TST or blood test is not recommended. TB specialists recommend regular tuberculin testing even for patients with CD4 counts < 200, who may not be as reactive to the test due to immuno-suppression (called “anergy”). For this reason, HIV-infected persons with a negative TST or QFT-g who have TB symptoms or a history of exposure to TB should be evaluated with a chest X-ray. Realize that a negative chest X-ray does not rule out active TB including non-pulmonary TB, in an HIV-positive patient. In most jurisdictions, patients, including those who are unstably housed with a positive TB test or symptoms of active TB, can be referred to the local health department for evaluation and treatment that is typically free of charge to the patient.*

TB surveillance techniques may vary according to TB prevalence in the community. *Collaborate with your local health department for TB surveillance, screening and referrals, to help decrease barriers to care for unstably housed patients.* Various agencies (including shelters) require proof of TB testing. It is not unusual for an unstably housed person to have been tested multiple times for TB by different providers. *Help the patient maintain a “medical home” where documentation of services is retained. Provide a written record of TB testing results on a wallet-sized card that patients can carry with them. Ensure that the patient understands their test results, the difference in latent and active TB, and the symptoms of active TB so they can seek immediate medical care if such symptoms develop.*

- **Hepatitis testing** Hepatitis B (HBV) and hepatitis C (HCV) are transmitted through sex and needle-sharing and are common co-morbid infections in HIV-infected patients. HBV and HCV testing are especially recommended for injection drug users and their partners, and *should be part of the initial evaluation of every HIV-infected person. In patients with ongoing risk factors, screen annually to detect new seroconversion.* HCV negatively affects the course of HIV disease, and vice versa (Backus et al., 2005; Thompson et al., 2005; Nyamathi et al., 2002). Many HIV-positive patients have a low response to

HBV vaccine (Ramirez, Garcia, Romero, & Jover, 1990). HBV infection can be prevented through immunization and the 3 dose vaccination schedule is recommended for all HIV-infected persons who test negative for HBV infection; there is currently no vaccination for HCV. *Test for immune response (HBsAb, HBsAg) after vaccination; consider double dose of vaccine if there are no immune titers.* A minority of patients may have occult HBV (where anti-HBc is positive and HBsAg is negative). *Consider HBV DNA testing of patients with unexplained increased liver enzymes* (Highleyman, 2007). Test for immunity and vaccinate for hepatitis A accordingly (transmitted through a fecal-oral route).

- **Cancer/STI screening** HIV-positive women should have a complete gynecologic evaluation including a *cervical Papanicolaou (Pap) smear*, which also tests for *Human papillomavirus (HPV)*. Gynecologic examination should occur as part of the initial HIV evaluation and upon entry to prenatal care. A repeat Pap smear should be performed 6 months later. If both smears are negative, annual screening is recommended thereafter in asymptomatic women. Screening every 6 months is recommended for women with symptomatic HIV infection, prior abnormal Pap smears, or evidence of HPV infection. HPV vaccination should be offered to all females between the ages of 9 and 26 (CDC, 2006b). In addition, *GC/chlamydia and RPR/VDRL screening* should be done at initial diagnosis and annually in all HIV-infected persons, or more often if clinically indicated. Although there are currently no national recommendations of routine screening for anal cancer,<sup>4</sup> some specialists recommend anal cytologic screening for HIV-seropositive men and women due to their higher risk for cancer. *Consider anal Pap tests along with tests for rectal N. gonorrhoeae and C. trachomatis infection at baseline and annually in the following populations: men who have sex with men and any patient with a history of anogenital condylomata.*
- **Pregnancy test** Offer pregnancy testing (*UCG urine test*) to sexually active female patients of childbearing age.

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<sup>4</sup> The 2008 DHHS Guidelines for the Prevention of Opportunistic Infections Among HIV-Infected Persons note that “anal cytology screening of HIV-seropositive MSM and of women may be useful preventive measures. However, studies of screening and treatment programs for AIN 2 or 3 (high-grade anal intraepithelial neoplasia) need to be implemented before definitive recommendations for anal cytology screening can be made. There are no national recommendations for routine screening for anal cancer. However, some specialists currently recommend anal cytologic screening for HIV-seropositive men and women” (p. 107). The authors of a 2006 review of the literature on anal Pap smears concluded that a heightened awareness of anal cancer among HIV-infected individuals is warranted, but since there were no published studies evaluating the efficacy of anal Pap smear screening for preventing cancer in HIV-infected persons, “further research is needed to identify improved methods for preventing, detecting, and treating anal dysplasia” (Chiao, Giordano, Palefsky, Tyring, & El Serag, 2006).

**CASE STUDY: UNSTABLY HOUSED WOMAN WITH HIV**

A.B. is a 41-year-old Hispanic female who reported being diagnosed with HIV. Her viral load was 90,538 and her CD4 count was 644 one year following initial diagnosis. This client reports a significant history (25+ years) of polysubstance abuse, a history of childhood sexual abuse, recent adult sexual assault, and psychiatric instability. Assisting this client with treatment adherence involved educating her primary social supports (her daughter, sister and partner) about her HIV and mental health issues.

A.B. was diagnosed with high-grade cervical dysplasia while incarcerated. Coordination of her medical visits with the correctional facility during incarceration was necessary to maintain continuity of HIV care. She did not receive treatment for cancer of the cervix until 16 months following her cancer diagnosis because of failure to keep medical appointments during a period of relapse in addiction recovery. Although the client's whereabouts were unknown during this period, she was able to maintain contact with our medical and mental health team by paging her social worker.

Our primary objective was meeting the client's basic needs while unstably housed so that she could continue to address her medical issues. Coordination of care was provided by the Dade County Homeless Assistance Center. The client is currently awaiting transfer to a dual diagnosis residential facility. She has been provided with bus tokens and food vouchers to facilitate her return to the clinic for medical care. To further support treatment adherence, an initial mental health assessment was conducted; recommendations included a psychiatric evaluation and psychotropic medications. Our multidisciplinary team has coordinated care provided to this client during medical visits, in group therapy, and in HIV educational groups.

Due to her significant instability over the last 17 months, the client did not begin ART until nearly three and one-half years after first being diagnosed with HIV.

*Claudia Vasquez Fraga, LCSW, Miami, Florida*

# Plan and Management

## PLAN OF CARE

- **Next steps** Explain the need to *develop an agreed-upon plan of care with the patient's active involvement*. Allowing a patient to have a voice in his/her treatment decisions increases the likelihood of the patient's willingness and ability to remain in HIV care and adhere to ART. *Emphasize next steps* the patient should expect, while *reassuring him/her that everything need not be done right away*.
- **Interdisciplinary team** Establish an interdisciplinary clinical team to work with the patient, including *addiction/mental health counselors, a medical care manager, a medical case manager (a primary social services provider), a peer navigator (most appropriate for the individual client), a health care access associate (as appropriate without duplicating services), and a treatment advocate (may double as the peer)*. The patient should also be an integral part of the team since his/her active involvement leads to better decisions and willingness and ability to adhere to the plan of care. *Every member of the clinical team should engage in care planning and coordination and patient education about HIV*. A team approach increases the likelihood that the patient will develop strong rapport with at least one caregiver.
- **Basic needs** Understand that seeking care for HIV disease usually will not be the most important problem for an unstably housed patient unless s/he is acutely ill; food, clothing, housing, and mental health issues may be perceived as more important. *Develop an individualized plan of care with the patient that incorporates strategies to meet basic needs*. This will strengthen the therapeutic relationship, increase patient stability, and promote successful treatment. Identify resources available to address basic needs, determine patient eligibility, and actively connect the patient to these resources early during the therapeutic relationship.
- **Patient priorities & goals** *Carefully assess the patient's immediate and long-term needs and what the patient identifies as priorities and has experienced as challenges*. Ask what s/he would like you to do to help him/her address these issues. *Address immediate medical needs first (the patient's reason for the visit) rather than underlying causes*. For example, provide cough medicine, pain relief, or hormones, where indicated, even if you don't think they are medical priorities. The patient will be more receptive to discussion of underlying causes if immediate needs are met. However, these small steps should be combined with a targeted medical evaluation for an acute or more serious condition. Encourage the patient to specify his/her own goals and prioritize issues to be addressed. Meeting small, manageable objectives and keeping follow-up appointments are evidence of the patient's willingness and capacity to adhere to treatment.
- **Governmental assistance** Help the patient apply for Ryan White CARE services including the state AIDS Drug Assistance Program (ADAP), Housing Opportunities for Persons with AIDS (HOPWA), disability assistance (SSI/SSDI), Medicaid, Supplemental Nutrition Assistance Program (SNAP), and any other programs that facilitate access to health and social services. Be mindful that Ryan White operates as a payer of last resort program. Once the individual secures Medical Assistance or other

coverage, they are no longer eligible for many Ryan White services. Consequently, engage unstably housed HIV-positive individuals into comprehensive programs that have diversified funding sources so the individual is eligible for services regardless of insurance status. Too many individuals have lost a trusted provider because that provider was fully funded by Ryan White dollars and the client accessed public insurance, making them immediately ineligible to continue with their provider.

- **Communication** *Frequent discussion (including face-to-face, phone calls, and text messaging), explanation in simple language, and feedback regarding the patient's understanding of the plan of care are critical to adherence. Recognize that patient forgetfulness may be a symptom of cognitive impairment secondary to HIV, medication side effects, or comorbidities. Do not criticize the patient or talk to them in a patriarchal manner (i.e., talk as the expert without allowing them to express their perspective); speak in a straightforward and nonjudgmental manner. Avoid medical jargon and euphemisms, which can be confusing and perceived as "talking down" to the patient (with an adolescent, talk about "having sex," not "intercourse"). Use an interpreter and/or lay educator (promotoras) to facilitate communication and assure culturally competent care for patients with limited English proficiency.*

#### **EDUCATION, SELF-MANAGEMENT**

- **Basic education about HIV** Learning about HIV and how to control it can help unstably housed patients regain a sense of control over their lives and provide an impetus for change and incentive to work on other issues (e.g., begin drug treatment, reunite with family). Begin at the first visit and provide ongoing education, support, and reinforcement at each subsequent visit. Provide answers to basic questions about HIV: What is the virus? What is it doing to your body? Why do you need medication? Educate patients about the natural course of the disease and the availability of effective treatment to keep them mentally and physically healthy. Provide printed information in language they can understand (see Literacy section). *Teach patients how to know if they are sick, how to tell if the illness is more serious than a cold, how to care for themselves when sick, and when to seek urgent or emergent care.* Educate them about warning signs of HIV complications (fevers, coughs that won't go away, exhaustion) and what you can do to help alleviate these symptoms. *Tell patients where they can go to get medicine and where they can go to recuperate when ill.* Explain that the more advanced their disease is, the more preventive medications will be required to keep them from getting sicker.
- **Self-management of HIV disease** With the availability of highly effective ART, there has been a shift to the recognition that HIV disease requires management as a chronic disease similar to diabetes, hypertension, and chronic lung disease (Swendeman, Ingram, & Rotheram-Borus, 2009). Providers should facilitate a self-management model in which patients assume an active and informed role in health care decision-making to change behaviors and social relations to optimize their health and proactively address predictable challenges of HIV. Promote self-efficacy by teaching them how to manage their HIV disease by tracking their CD4 counts and HIV viral loads and their adherence to appointments and medication. Tell patients where they can go to get medicine and where they can go to recuperate when ill. Explain that the more advanced their disease is, the more preventive medications will be required to keep them from getting sicker. Explain that if they successfully adhere to their

prescribed treatment and maintain HIV Viral suppression they can live normal lives and substantially reduce their risk of transmitting HIV to their sex and drug partners.

- **HIV transmission** Explain that the HIV virus can be passed through injection drug use (IDU), sexually, perinatally, and via breast milk from an HIV-positive mother to her baby. *Review safe sexual practices*, including limiting the numbers of sexual partners and always using condoms; *facilitate access to condoms* (other contraceptive methods do not prevent HIV transmission). Stress the need for protection even after beginning ART. Counsel HIV-infected pregnant women about how to reduce the risk of transmitting HIV infection to their babies. *Stress the importance of being closely followed by a provider experienced in the care of pregnant women with HIV and the use of ART to reduce perinatal transmission of infection*. Refer them to high risk obstetric care, where HIV expertise and support are available. Refer for expert postnatal care for the child. Guidance for HIV-positive mothers regarding breastfeeding is mixed. Some clinicians do not recommend breastfeeding for HIV-positive mothers if there is a safe and feasible alternative—that is, if infant formula is available, if there is access to clean water to prepare formula milk and cleanse bottles and nipples, if refrigeration is available to store prepared formula, and if the mother can manage formula feeding with appropriate hygiene (DHHS, 2008; WHO, 2007). However, the latest recommendations from the World Health Organization (2010) recommend exclusive breastfeeding in the first six months of life.<sup>5</sup> *Mothers should either formula feed or exclusively breastfeed; HIV transmission rates are higher in those who alternate between the two* (WHO, 2007).
- **Prevention** Discuss ways to reduce HIV risks for the patient and others. For injection drug users, *stress the importance of self-administered injections; urge users to cease sharing drug paraphernalia and to participate in a needle exchange program. Promote behavioral change through individual, small group, and community interventions based on careful investigation of actual patient behaviors* (how they spend their time, what activities interest them) *and potential structural barriers to desired change*. New evidence from clinical trials have proven that the use of antiretrovirals by HIV-infected persons can decrease the probability of HIV being transmitted sexually (Mayer, 2012; Cohen et al., 2011). Consider the appropriateness of ART treatment for all unstably housed persons and work closely with them to achieve HIV viral suppression by promoting adherence (see Adherence section). Include adherence, viral load and their associated health attributes from primary and secondary HIV prevention perspectives.

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<sup>5</sup> According to the latest recommendations of the World Health Organization (2010), “Even when ARVs are not available, mothers should be counseled to exclusively breastfeed in the first six months of life and continue breastfeeding thereafter unless environmental and social circumstances are safe for, and supportive of, replacement feeding. ... Skilled counseling and support in appropriate infant feeding practices and ARV interventions to promote HIV-free survival of infants should be available to all pregnant women and mothers.” Consider strong guidance considering the substantial risk of infection with mixed feeding (Young et al., 2011). The DHHS guidelines (2008) presume formula feeding to be a safe alternative for babies born in the United States. Nevertheless, experienced HCH providers attest that for homeless families without access to refrigeration, appropriate hygiene, and/or Women Infant Child (WIC) services, use of breast milk substitutes may not be a feasible or safe alternative, even in the U.S.

Use *motivational interviewing*,<sup>6</sup> *risk reduction techniques*, and *social skills training*. Reinforce information about risk reduction with interactive activities that involve *repetition*, *positive feedback*, and *acting out new skills*, such as proper condom use and role playing (how to talk to a partner) (HCH Clinicians' Network, 2000; Susser et al., 1998). The most effective programs offering ART to injection drug users have strong links to community-based organizations and utilize peer educators and counselors (See CDC's Compendium of Evidence-Based HIV Behavioral Interventions, <http://www.cdc.gov/hiv/prevention/research/compendium/rr/characteristics.html> ).

- **Addiction management** For HIV-infected persons with a history of drug use, tailored HIV care, including ART, is often highly successful. Some drug users have stable routines and can integrate treatment into their daily life; others may need intense case management, harm reduction techniques, and/or outreach strategies to facilitate engagement in care. The most effective programs offering ART to injection drug users have strong links to community-based organizations and utilize peer educators and counselors. *Identify the patient's need for substance abuse treatment; treat mental health and medical comorbidities, and prescribe OI prophylaxis if the patient is not ready for ART. If the provider determines that ART is appropriate, develop a plan with the patient to ensure close communication and follow-up when treatment is started, and closely monitor patients who are actively abusing drugs or alcohol for missed appointments, signs of poor adherence, or signs/symptoms of potential toxicity. Recognize that illicit drug use has been associated with depression and anxiety and that depression is one of the strongest predictors of poor adherence and poor treatment outcomes (Tucker et al., 2003). Recognize that there are significant interactions between drugs of abuse and antiretroviral medications (for a current list of drug interactions, see Urbina, Faragon, Kubin, & Castillo, 2008), and alcohol can potentiate hepatic side effects of some medications. See new guidelines updated in real time at [www.HIVinsight.com](http://www.HIVinsight.com), [www.hiv-druginteractions.org](http://www.hiv-druginteractions.org), or the latest copy of the Seldon HIV/AIDS Treatment Guide.*
  
- **HIV therapy** *Inquire about the patient's understanding of HIV therapy.* Some patients refuse treatment because they don't understand it, have lost hope, are afraid of potential side effects of the treatment, and/or don't think treatment will matter. Some persons are afraid that other people may discover they have HIV if they are seen taking medications. Emphasize the positive; *assure HIV-infected unstably housed patients that they are candidates for treatment and can manage it successfully.* ART can be as effective for highly motivated persons who are unstably housed as for those who are housed, as confirmed by comparative measurement of viral loads following treatment.<sup>7</sup> Address the patient's concerns and fears about starting therapy and stigma, including how to manage potential minor side effects without stopping treatment, how to maximize adherence, and when/how to communicate with the provider if problems arise. *Explain what CD4 counts and viral loads are and how these measurements are used to help determine how advanced the patient's disease is, predict risk of complications, and monitor treatment*

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<sup>6</sup> Motivational interviewing is a goal-directed, client-centered counseling style for eliciting behavioral change by helping clients explore and resolve ambivalence (Miller and Rollnick, 2002, [www.motivationalinterview.org](http://www.motivationalinterview.org)).

<sup>7</sup> The percentage of homeless patients seen at Boston Health Care for the Homeless Program (BHCHP) with successful treatment outcomes (viral loads decreasing to below detectable limits and CD4 counts increasing by more than 50%) is similar to that of housed patients treated at Massachusetts General Hospital. In 2007, 84% of BHCHP homeless patients receiving antiretroviral therapy had undetectable HIV viral load <75 (Hohl, 2008).

adherence. Explain that HIV-infected persons can live well for many years if treatment regimens are followed with regular medical monitoring (see Medication Adherence Compendium, <http://www.cdc.gov/hiv/prevention/research/compendium/ma/complete.html>).

- **Written instructions/reminders** After assessing for literacy, *write down instructions about when to take medications each day* (at what times). Use *graphic illustrations* and color coding to clarify and reinforce verbal instructions; then *make sure that instructions are understood*. Ask the patient, “What medications are you going to take this morning and how?” Instruct the patient to “keep written instructions with you.” If a patient discloses that s/he has trouble reading, designate someone on the clinical team who can spend extra time to help him/her understand instructions, and *offer referral to a literacy program or instruction in English as a second language (ESL)*. Specify any dietary restrictions associated with ART or other treatment (whether medications must be taken with food or on an empty stomach). It is sometimes possible to *enlist the help of shelter staff in reminding patients to take medications*. Provide the patient pill boxes, help them keep a calendar of doses taken, teach them to use an alarm on their phone or watch, or tie their medication taking to another routine such as brushing teeth, combing hair, eating breakfast, etc. to help him/her remember the daily dose. It is helpful to have patients practice daily medication taking behavior using a multi-vitamin, prophylactic medication for OIs, or even small candies as appropriate.
- **Drug resistance** *Explain the risk of developing resistance to HIV medications if they are not taken consistently or appropriately*. Acknowledge that for all persons taking ART, as for persons receiving treatment for TB, development and spread of drug-resistant infection is a serious concern; but stress that lack of treatment is no more acceptable an alternative for HIV than it is for TB.
- **Treatment advocates** *Use social workers, nurses, case managers, or other HIV-infected persons as treatment advocates (peers/peer navigators as appropriate for each individual client), serving as liaisons between the patient and providers to promote successful adherence to HIV therapy*. Matching peers as closely to client experiences as possible increases success. Consider matching clients with peers who share similar experiences and life issues (e.g., AOD use/recovery, LGBTQI, chronic homelessness, etc.) (DHHS, HRSA, & HAB, 2009). The patient may feel more comfortable discussing side effects of treatment with social workers or other professional advocates who have more time to explain than medical providers. Treatment advocates should be part of an integrated clinical team and treated as peers by medical providers. Consider using consumer advocates (formerly homeless persons or HIV-infected peers) to accompany unstably housed HIV patients to appointments with specialists and attend clinic sessions with the patient and primary caregivers. This can help them overcome communication barriers sometimes experienced in encounters with mainstream health care providers. Use of consumer advocates to explain information conveyed by the medical provider to other consumers is often helpful, but must be done with sensitivity to patient privacy and confidentiality and in compliance with requirements of the Health Insurance Portability and Accountability Act (HIPAA) (For information about HIPAA privacy requirements, see <http://www.hhs.gov/ocr/privacy/hipaa/administrative/privacyrule/index.html>). In addition, if non-professional consumer advocates are used, ensure those individuals are trained appropriately for the

services that they will provide (e.g., how to navigate the HIV health system, disclosure, communicating clearly with a provider, or incorporating HIV medication into their lifestyle) as well as how to manage difficult situations, maintain boundaries, not provide medical information, and when to refer the patient to a professionally trained staff member or provider.

- **Directly observed therapy** Good results have been reported with directly observed therapy (DOT) when unstably housed patients come to the clinic once daily to take medications (Mitty et al., 2003). *DOT is recommended for patients with co-occurring TB, substance use disorders, and/or mental illness, but can present staffing and transportation challenges when patients must take medications 2–3 times per day. Provide transportation assistance to assure feasibility of this treatment option.* Some communities are exploring the possibility of directly observed HIV therapy at methadone clinics. Although some patients may benefit from an adherence program that provides medication storage and directly observed therapy, others are quite capable of managing medications on their own (e.g., clients with schizophrenia can adhere well to treatment regimens and other routines).
- **Side effects management** Recognize that medication side effects are one important reason for lack of adherence to ART. *Be candid about possible side effects of antiretroviral treatment, such as diarrhea, so the patient knows what to expect and can identify and better describe side effects that do occur. Ask what side effects the patient has noticed; if there is no medical alternative with fewer/less severe side effects, explore strategies to minimize and/or accommodate them within the patient’s lifestyle. Provide snacks (e.g., peanut butter crackers, individual boxes of cereal and milk with extended shelf life, individual containers of juice, granola bars, high energy bars) to help the patient avoid side effects and promote adherence to treatment. Many methadone centers will dose adjust when a client is starting ART and experiences a decrease in methadone efficacy. Consider the patient’s medical comorbidities and other medications when prescribing ART regimen so that you can choose the most tolerable regimen. For example, a person with a history of bipolar disorder should not be prescribed a regimen containing efavirenz, which may precipitate worsening of mental health conditions; a patient with a history of irritable bowel syndrome or hyperlipidemia should avoid lopinavir/ritonavir, which may exacerbate these conditions.*
- **Urgent medical problems** Help patients understand the difference between common medication side effects and symptoms of life-threatening toxicities. *Specify symptoms of hypersensitivity to all medications in the suggested plan. Stress the need for prompt evaluation if the following symptoms occur: fever, new rash, difficulty breathing, abdominal or back pain, vomiting, headache, and/or vision changes. Tell the patient not to wait until the next appointment if feeling ill; stress the importance of contacting their provider immediately and/or going to a drop-in clinic or the emergency room right away.*
- **Supportive relationships** Reluctance to inform others about their illness results in lack of supportive feedback for individuals with HIV. *Encourage a supportive relationship with a social worker, provider, or friend – someone in whom the patient can confide fears, questions and concerns, including problems with medication side effects. Advise the patient, “If your health care provider doesn’t have time to listen and discuss your concerns, find someone who does.” Link the patient with a support person or “sponsor”*

through HIV/substance abuse treatment programs or other community-based programs. Network with law schools and community groups to provide *pro bono* legal assistance with child custody, drug arrest, or immigration issues as part of substance use treatment programs. Create a support group where patients experiencing extreme stigmatization or isolation can share concerns and learn how others are coping with their disease. Members of ethnic/sexual minorities and migrant workers may experience more marginalization and isolation than other unstably housed individuals with HIV. Help such patients find each other for mutual support. *Offer social support groups in addition to groups for therapy or counseling. Help patients moving into transitional housing learn how to live successfully in a community setting (e.g., respect personal boundaries).*

- **Nutrition counseling** *Educate patients about nutritional health, diet, and dietary supplements. If possible, include a Registered Dietitian familiar with the issues of homelessness on the interdisciplinary health team to do screening and frequent consultation. Consider the use of bioelectrical impedance analysis (BIA), which can detect improved body cell mass in patients with AIDS wasting syndrome, to educate patients about their nutritional status and promote early detection and management of HIV-associated nutritional changes (Klauke et al., 2005; Swanson & Keithley, 1998). Prescribe multivitamins with minerals. Assure that pregnant patients receive appropriate vitamin supplements (with folate). Prescribe nutritional supplements with less familiar brand names and lower resale value to reduce risk of theft.*
- **Medical home** *Discuss benefits of forming relationships with care providers who can help the patient avoid becoming acutely ill. Explain what primary care is and how to use a regular source of care (“medical home”). Many unstably housed people have never had a regular medical provider and only receive medical care episodically from hospital emergency room staff. Present regular primary care as an opportunity to be in charge of one’s own health. Many medical problems, including those related to HIV, are preventable. If an unstably housed patient is reluctant to engage in primary HIV care, explore and address his/her concerns or feelings.*
- **Education of service providers** *Educate all homeless service providers about HIV, including prevention measures and the need for nonjudgmental, compassionate care. Provide basic education about risk factors for HIV infection, the natural history of the disease, what to expect if the patient is or is not treated, transmissibility of infection, and standard precautions. Educate medical providers about the special needs of unstably housed patients with HIV. Explain how treatment adherence and successful outcomes are possible even for unstably housed individuals with mental health/substance use problems. Stress the importance of developing a nonjudgmental, therapeutic relationship based on unconditional acceptance of the patient and harm reduction. Help specialists understand that unstably housed people may not be able to follow the treatment plan they prescribe and how to modify the plan of care so unstably housed patients can better adhere. Educate primary care providers about chronic pain management and addiction medicine. Understand your own feelings about substance use, sex work, and mental illness. Take time in a safe setting to explore your feelings about people who are unstably housed. Talk about your experience, biases, and stereotypes with other providers who are more experienced in caring for unstably housed patients. Help pastors learn how to talk about HIV with members of their faith community. Work with food services at shelters and soup kitchens to provide appropriate meals.*

**CASE STUDY: ANTIRETROVIRAL THERAPY FOR AN UNSTABLY HOUSED MAN**

Samuel is a 32-year-old Caucasian man who entered our therapeutic community for alcohol abuse treatment. He had tested positive for HIV two years previously. He was begun on ART and instructed to take medications on a full stomach.

We saw Samuel two weeks later and, among other things, reminded him to take nelfinavir after a full meal. He told us he was doing so, with the exception of Saturday and Sunday mornings. The shelter in which the therapeutic community was located served three meals on weekdays, but on weekends served only two meals a day – brunch (at noon) and dinner (in the evening). So on Saturdays and Sundays, Samuel took his morning nelfinavir on an empty stomach.

The problem was solved when I spoke to the shelter staff and explained the need for the morning meal, which was subsequently provided on Saturday and Sunday mornings, in addition to brunch and dinner.

Elizabeth Lutas, MD, New York City

**MEDICATIONS**

- **Medical priorities** With all HIV-infected patients, *weigh benefits against potential risks of early antiretroviral treatment*. Consider other medical priorities, including: psychotropic therapy for severe mental illness, substance abuse treatment/therapy (methadone for heroin addiction), prophylaxis for OIs and TB (if tuberculin test is positive), treatment and management of uncontrolled hypertension, diabetes, and seizures—any of which can undermine a patient’s ability to adhere to HIV treatment. However, recent guidelines recommend considering ART for all adults with HIV infection, with the strength of evidence increasing as CD4 counts decrease (Thompson et al., 2012).
- **Prophylaxis** Start prophylaxis for OIs as soon as indicated by standard clinical guidelines (DHHS, 2012). *Explain the importance of OI prophylaxis at each visit if the patient is not initially interested or willing to accept preventive treatment*. Taking medication regularly for OI prophylaxis can be an indicator of readiness for ART.
- **Immunizations** Lacking reliable food and shelter, most unstably housed people welcome immunizations as a way to prevent illness. Given their high risk for exposure to respiratory infections in congregate living situations, all unstably housed patients should receive *influenza* vaccine annually and be immunized against *pneumococcus* according to standard clinical guidelines. Also provide *hepatitis A and B* vaccines. Offer *Tetanus, Diphtheria, Pertussis (Tdap)* vaccine to patients aged 19–64 if the last immunization was more than 10 years ago and to all patients under age 65 who have not been vaccinated before. Provide *pneumococcal polysaccharide vaccine (PPV)* to all HIV-infected persons as close to HIV diagnosis as possible and every 5 years thereafter (Quick Reference Vaccines Chart: [www.cdc.gov/vaccines/vpd-vac/vaccines-list.htm](http://www.cdc.gov/vaccines/vpd-vac/vaccines-list.htm)).

- **HIV treatment readiness** Never rush to antiretroviral treatment unless it would be life-saving with more advanced disease and significant illness; *build a therapeutic relationship first. Encourage more frequent visits to prepare unstably housed or formerly homeless patients for treatment by facilitating transportation assistance, providing incentives, performing outreach, and other applicable techniques.* Evaluate readiness for treatment and ability to adhere to a plan of care by first attempting to understand the patient’s current behavior in light of his or her life story. Elicit this information in a nonjudgmental way using open-ended questions; *understand the patient’s lifestyle and how basic needs are met or challenges that result in unmet need.* If s/he desires treatment, *have the patient walk through his/her daily routine to discover how to prescribe medications that can fit into that routine.* Outreach provides an opportunity to observe patients in their own environment and assess stability, evidence of regularity, and capacity to follow a schedule (sleep pattern, access to food/water/clock, daily activities, regular appointments, etc.), in order to evaluate their readiness for ART.

A patient who must leave the shelter at 5:00 a.m. may not be able to take medications at that time. Ask what s/he does after leaving the shelter (e.g., go to a drop-in center or the library? have breakfast?) Ask if there is a “private time” when s/he can take medications. Privacy is frequently an issue for unstably housed individuals, who worry about taking medications that have street value or which might reveal their diagnosis. (If others discover they have HIV, they may be shunned or at increased risk for abuse.) Ask the patient, “Who can help you take your medicines and keep track of them?” *For best outcomes, engage patients and assure that they have a comfortable “medical home” and some type of social support (e.g., friend, case manager, or peer) before beginning treatment. Address issues that may complicate treatment adherence, including mental illness and substance use.* The patient should be part of the team that helps to decide when to begin treatment. There is no better way to engage patients than to ensure that their voice will be heard in the treatment and care plan decisions. Active involvement leads to better decisions and self-management. Patients starting ART should be willing and able to commit to treatment and understand the benefits and risks of therapy and the importance of adherence. Patients may choose to postpone therapy, and providers, on a case by case basis, may elect to defer therapy on the basis of clinical and/or psychosocial factors.

- **“Practice” medications** For a patient desiring HIV therapy whose ability to adhere to treatment is questionable, *consider using placebos or vitamins as “practice medications” for a week or two.* Put medications of the same size and number to be prescribed for HIV in a pillbox; follow up in a week. Ask the patient how many pills were taken, how many missed. This may convince the patient that s/he is not yet ready for HIV therapy (e.g., needs to work on substance abuse issues first). *Use of this technique is not recommended for patients with advanced disease (i.e., CD4 <200 or OI) as it may unnecessarily delay urgently needed treatment.* While use of “practice” medications may be appropriate for some patients, it should not be routinely used. Many studies of HIV-infected unstably housed people, including active substance abusers, demonstrate that most are able to adhere well to ART. Moreover, the use of practice medications is perceived as patronizing by many patients.
- **Antiretroviral medications** *Be knowledgeable about HIV treatment regimens and when guidelines recommend initiation of treatment, as well as recommendations for managing treatment failure (Thompson et al., 2012).* Working on prophylaxis, immunizations, obtaining housing, and access to other health and social

services before initiating HIV therapy can strengthen the therapeutic relationship, help the provider decide on the best medical regimen, and result in more successful treatment. If the patient has advanced disease and a very low CD4 count, however, delaying ART can increase risk of mortality. Although housing can improve adherence to treatment, it is important to realize that Section 8 housing can take 6–12 months or longer to obtain. A person with advanced disease could easily die of an OI in that period of time. *Individualize initiation of HIV therapy and continually reassess treatment adherence and effectiveness. Ensure access to medications that can be taken once or twice daily.*

- **HIV specialist** HIV is a primary care disease that requires special knowledge to treat. *Partner with an HIV specialist* (a certified clinician who follows at least 26–50 HIV-infected patients every six months and pursues continuing education) *in prescribing treatment through consultation or referral; or consider becoming a HIV specialist yourself.* The team approach to care for unstably housed individuals is optimal; an HIV specialist, primary care provider, case manager, nutritionist, mental health professional, and outreach worker should all be part of the team. A primary care provider serving a community with a fairly high incidence/prevalence of HIV should develop HIV treatment skills. In the clinic setting with five or fewer patients known to be living with HIV infection, a referral source should be established for specialty treatment. In the clinic setting with more than five patients living with HIV, the provider(s) should consider participating in continuing education specifically directed toward developing expertise in the treatment of HIV/AIDS. Consult with an infectious disease specialist and other specialists in planning medications for patients with comorbidities. Consultation is a two-way street; specialists may consult primary care providers with expertise in serving unstably housed patients.
- **Simple regimen** *Prescribe the simplest, most effective medical regimen possible (Thompson et al., 2012). Don't undertreat HIV or OIs just because a patient is unstably housed.* Pill count, frequency, and dosing are extremely important for unstably housed patients; *once-a-day dosing is preferable if clinically indicated, especially for those who may be unable to adhere to a more complex regimen.*  
**ART:** Several antiretroviral drugs are available in formulations that permit once daily dosing (see DHHS, 2008, p. 66–69; Thompson et al., 2012). Dispensing medications a day or a week at a time will help some patients, if transportation to and from the clinic is available and affordable. If possible, provide transportation or carfare for unstably housed patients. Overcome the common perception that antiretroviral medications are too complicated.  
**OI prophylaxis:** If prescribing trimethoprim/sulfamethoxazole double-strength (TMP/SMX DS) for pneumocystis prophylaxis (PCP), one dose per day is best and probably easiest for most unstably housed patients, but 3 times per week is acceptable. (Alternatively, use once weekly dosing with dapsone/pyramethamine/leukovorin for PCP, and with azithromycin for mycobacterium avium complex (MAC) if CD4 < 100). For some patients, remembering to take the medication every morning is easier than remembering to take it weekly or 3 times per week. *It's better to take some medication for OIs than none. The opposite is true for ART: it's better not to take antiretroviral medications at all than to take them only some of the time.*

- **Dietary restrictions** Find out if the prescribed regimen has any dietary restrictions. *Inquire about the patient's access to regular meals.* Some HIV medications must be taken with food; other medications must be taken on an empty stomach. *If possible, prescribe medications without dietary restrictions.*
- **Side effects** Prescribe medications with fewer/less severe GI and other side effects (DHHS, 2012, Table 17). Some NNRTIs and protease inhibitors have fewer GI side effects. The severity of side effects experienced by the patient may not be apparent to the provider. Diarrhea creates an added burden for an unstably housed person with limited access to toilets and bathing facilities. Address the likelihood of diarrhea with certain protease inhibitors and provide anti-diarrhea medication for patients with symptoms. Nausea, which often results from taking medications on an empty stomach, may also be incapacitating; providing nutritious snacks can prevent this side effect. *Be more aggressive with unstably housed patients in treating side effects or changing medication, if an equally effective alternative is available.*
- **Drug toxicities** *Be aware of serious toxicities associated with ART (DHHS, 2012, Table 17; Thompson, 2012). Screen for HLA-B5701 before prescribing abacavir (Hetherington et al., 2001); although rare, a negative result does not absolutely rule out the possibility of hypersensitivity. Review symptoms of hypersensitivity with the patient, which include nausea, anorexia, abdominal pain, vomiting, weight loss, and fatigue (Hetherington et al., 2001).*
- **Drug interactions/contraindications** Chronic illness may complicate HIV treatment because of the potential for drug-drug interactions (see <http://aidsinfo.nih.gov/guidelines>). Awareness of drug interactions is important when prescribing HIV medications. Some medications may be contraindicated if the patient has a history of pancreatitis or alcoholism, or should be used with caution and more frequent monitoring with co-occurring mental illness, hepatitis C, high cholesterol, or diabetes. Some HIV medications and HIV itself may cause metabolic changes, which can include diabetes, hyperlipidemia, and changes in body fat distribution, in addition to osteoporosis and lactic acidosis. ART can also exacerbate pre-existing diabetes. *Carefully monitor all patients on ART for the development of glucose intolerance and diabetes, as well as for lipid abnormalities and lipodystrophy; treat according to accepted standards of care (DHHS, 2008).*

**Methadone** Evaluate use of methadone by patients on ART. *Be aware that non-nucleoside reverse transcriptase inhibitors (NNRTIs) and certain protease inhibitors can reduce the efficacy of methadone by as much as 50%. If a protease inhibitor is indicated, use ritonavir boosting (DHHS, 2012; Thompson, 2012).* If this is not feasible for a patient on methadone, it is essential to *work directly with the patient's methadone maintenance treatment program to adjust the dosage upward.* Many practitioners begin with a 20% increase in methadone dosage when ART is initiated. *Recognize that successful adherence to methadone therapy for persons addicted to heroin can increase adherence to ART (Clarke et al., 2003).* Some patients won't begin HIV treatment or may stop taking medications because of the misconception that all prescription drugs are incompatible with alcohol or other drug use.

**Other analgesics** Recognize that HIV and hepatitis C are painful diseases, and that other co-morbidities commonly seen in unstably housed patients, including traumatic injuries, can result in

chronic pain. *Recognize that some HIV medications can decrease or increase the efficacy of pain medications, including methadone and other narcotics. Work with the patient to understand the underlying cause of pain; prescribe appropriate pain medication and document why you prescribe it. Understand chronic pain management; if you don't, the patient may seek relief from practitioners known to provide pain medications indiscriminately, without understanding HIV care or monitoring for possible misuse. Be aware that medications for pain or anxiety have significant street value that could place an unstably housed person at risk for theft or physical harm. If necessary, refer to a pain management specialist; maintain open communications with the patient and other providers. To avoid overmedicating or contributing to drug-seeking behavior, encourage cooperation with a contract that specifies the plan of care and designates a single provider for pain prescription refills.*

- **HIV treatment & substance use** Recognize that alcohol and drug use is common among unstably housed people and *prescribe medications that are compatible with substances used* (DHHS, 2012, Table 17). Most antiretroviral medications are chemically compatible with commonly used street drugs, although use of psychoactive substances, including prescribed psychotropic medications, can interfere with remembering to take medications. Additionally, illicit drug use has been associated with depression and anxiety, which is particularly relevant in the treatment of HIV infection because of the added negative effect of depression and substance abuse on adherence and treatment outcomes (Tucker et al., 2003). Address these issues candidly with the patient in order to promote adherence. An automatic assumption that people with substance use disorders cannot adhere to HIV treatment is inappropriate. The primary challenge is determining when to initiate therapy. Unstably housed individuals with substance use disorders can learn how to organize their lives so they can keep appointments and take medications while actively using psychoactive substances. Indicators of readiness include keeping regularly scheduled appointments with medical and ancillary staff and adherence to other medications for prophylaxis of OIs or other conditions. *If HIV therapy is desired and there is evidence that the patient can adhere to a regular schedule despite substance use, advise taking HIV medications before using other drugs of abuse.*

*If appointments are missed, seek the patient out and explore in a nonjudgmental manner what has changed in his or her life to motivate a change in behavior (common triggers of relapse: contact with/rejection by a family member, anniversary of a painful event). Look for indications of new stresses and difficulty coping; help the patient find ways to cope. Most important, maintain ongoing communication with the patient and an accepting and positive approach to facilitate a patient feeling comfortable returning to care even after a period of loss to care. Many actively using individuals experiencing chronic homelessness have successful treatment outcomes. Knowing that medications can prolong life can give them hope and motivate lifestyle changes to promote health. Successful HIV treatment is not only possible, but extremely desirable for unstably housed people with chemical dependencies.*

- **Drug resistance** Resistant virus in antiretroviral-naïve HIV-infected patients can be as high as 16%, depending on the geographical area. Drug resistant mutations may be below the sensitivity level of the HIV test and become evident only in response to specific medications. *Use genotype testing to increase the possibility of choosing a successful therapy. Individualize therapy* (DHHS, 2012). *Balance possible side effects*

with simplicity and low resistance barrier with tolerability. If the patient requests HIV therapy, is willing to begin treatment and is medically appropriate for treatment, select an initial regimen to which s/he can adhere, preferring medications with a low pill burden where possible. Unstably housed individuals should have the same access to HIV medications as others.

- **Adherence monitoring** At every visit, ask how many doses of each medication the patient missed over the last week or month. Explore and address any barriers to adherence. Problem solve with the patient, encouraging him/her to suggest solutions that are most comfortable and will best fit with his/her lifestyle and daily schedule. If forgetting doses is the problem, use pill boxes, watch alarms, support of family or friends, or other methods to help him or her remember to take medications. Address adherence routinely so that problems are identified before the patient develops resistance and fails the treatment regimen. CD4 decrease or viral load rebound is sign of treatment failure and a very late stage marker of adherence. Measure CD4 counts and viral load every 3 months; if the patient's viral load increases and the CD4 count decreases, find out why and address the reasons. Reduced treatment adherence is often triggered by depression or a relapse in recovery. To facilitate adherence, use a harm reduction approach, outreach, intensive case management, directly observed therapy, team approach (with nurses, pharmacists, and peer counselors), and medication monitoring. Provide incentives and don't require clients to be drug and alcohol free to receive them. Aggressive outreach and case management will contribute to successful outcomes for active substance users. Some patients with advanced disease and/or multi-drug resistance will benefit from treatment and a reduced risk of transmission even if viral loads are not entirely suppressed.

**Pill packs** Consider providing "blister packs" for all medications, labeled for each day of the week, each meal per day. Some pharmacies provide pre-packaged pill boxes with handles or "easy packs" (a cellophane roll with perforated sections that enable patients to tear off morning and evening doses and carry them in a pocket or bag). This helps patients with memory loss keep track of their medications and makes resale more difficult. Some people prefer using their own system to remember what pills to take when.

**Reminders** Consider the use of electronic reminder devices such as beepers, pagers, cell phones, wristwatch alarms, and pillbox alarms programmed to prompt patients to self-administer their medications as prescribed. Homelessness does not preclude HIV/AIDS patients from having access to electronic devices, which can prove useful in promoting treatment adherence and clinical follow-up, with the added advantage of being mobile, discrete, and easily integrated into their daily routines (Wise & Operario, 2008; Hsu, 2008; Bamberger et al., 2000).

- **Medication storage** Allow unstably housed patients to store medications at the clinic and come there daily for treatment. This protects against having medications stolen or confiscated by police if arrested for public nuisance offenses, and assures that they are taken as prescribed. If medications are not stored in the clinic and the patient does not have access to refrigeration, avoid prescribing medications that require it (e.g., ritonavir). Shelter residents may be required to turn in all medications to shelter staff that sometimes lose/misplace them or fail to return medications to the patient when needed. Lack of privacy/confidentiality is a major problem for shelter residents, who may be reluctant to complain to

shelter staff for fear of disclosing their diagnosis and too embarrassed to tell the provider if medications are lost repeatedly. *Urge shelter staff to make stored medications easily available to patients; explain that medications are costly and necessary for the patients' health.*

- **Access to medications** The availability of free or low-cost HIV medications may be limited, particularly in smaller communities and rural areas. For unstably housed patients, even a small co-payment can be a barrier, and for those without health insurance or access to programs that provide free medications, the cost of ART may be prohibitive. *Assure continuous access to medications before initiating treatment.* In some cities, unstably housed patients are referred to one clinic or pharmacy to prevent misuse of medications. Lack of transportation to the pharmacy can present barriers to getting prescriptions filled. Since unstably housed people do not have regular access to telephones, coordinating delivery of medications to these patients can be difficult. *Provide transportation for patients to pick up medications or arrange for delivery of medications to a location where the patient can obtain them reliably and wants to receive them (e.g., a friend's home, social work center or clinic).* Delivery of medications to a clinic for pick up and distribution can provide another opportunity for hands-on education about treatment adherence.

#### **ASSOCIATED PROBLEMS, COMPLICATIONS**

- **Medication side effects** Side effects of ART are a primary reason for nonadherence (DHHS, 2012). *Recognize that medications which interfere with survival on the streets by making people feel sicker or more fatigued will not be acceptable to unstably housed patients.* Common side effects of ART include diarrhea (particularly from some protease inhibitors), nausea (if taken on an empty stomach), peripheral neuropathy (numbness/tingling in extremities, exacerbated by poor nutrition and constant walking), and nightmares. Living in a shelter or on the streets is especially difficult for patients with these symptoms, which are exacerbated by chronic sleep deprivation and depression. *If alternative medications with fewer negative side effects are not medically indicated, treat side effects symptomatically.* Some clinicians recommend the medical use of marijuana to help control pain and nausea, and to reduce alcohol or other drug use. Some medications increase sensitivity to sun exposure (e.g., TMP-SMX DS, commonly prescribed for PCP prophylaxis). Advise unstably housed patients who spend most of their time outdoors to wear long sleeves and sunscreen to avoid sunburn. *Be more aggressive in treating side effects or changing medication for unstably housed patients, if an equally effective alternative is available.*
- **Severe drug toxicities** Some adverse effects of antiretroviral agents can be fatal if the drugs associated with them are continued (DHHS, 2012, Table 17). Medication hypersensitivity reaction, hepatic necrosis, Stevens Johnson Syndrome, pancreatitis, and lactic acidosis are among the drug reactions that should be considered medical emergencies. *Be aware of life-threatening complications of ART and how to manage adverse effects (see DHHS, 2008, Table 18: p. 78-83).*
- **More acute illness** Because unstably housed people with HIV may not seek care until their disease is advanced and symptomatic, they often present with more acute illness relating to OIs or HIV-related co-morbid conditions (e.g., certain malignancies, HVI-related cardiomyopathy, or renal disease). Even in areas with free access to exceptional HIV care, new patients with advanced AIDS at initial HIV diagnosis

are not unusual, and this may be more common among unstably housed persons. OIs and diseases unrelated to HIV may increase the severity of illness. Major complications of HIV include late-stage OIs such as *Pneumocystis carinii* pneumonia (PCP), invasive candidal infection, Kaposi's sarcoma (KS), toxoplasmosis, cryptococcal meningitis, and CMV retinitis (which can lead to blindness if untreated). *Provide or refer unstably housed patients to a respite care facility where they can convalesce when ill/following hospitalization or receive end-of-life care.* Develop close linkages with inpatient service providers and facilities to ensure coordination of HIV patients transitioning from the community to a facility or vice versa.

- **Co-occurring mental illness & substance abuse** Mental illness, substance use, and HIV are frequently linked. Many people with mental illness use psychoactive substances that result in loss of inhibition and can result in unsafe behaviors that increase their risk of exposure to HIV, TB, and hepatitis. Mental illness (both Axis I and Axis II disorders) and substance abuse can interfere with treatment adherence. Optimally, *treat co-occurring mental illness and substance abuse/dependence simultaneously within the same program.* Underlying mental illness is often the primary issue that keeps unstably housed patients out of care; or if in care, may be their most pronounced disorder (Weiser et al., 2006). *Involve a psychiatrist who is interested in the co-occurrence of these disorders with HIV in the assessment and management of unstably housed patients and include outreach workers and/or case managers experienced in working with this population on the patient's multi-disciplinary care team.* A key issue is pharmacodynamics, including the cumulative side effects of polypharmacy and drug-drug interactions. Some mental health problems including anxiety and depression can be treated by a primary care provider. *Refer more complicated patients and those who do not respond to initial treatment to a dedicated mental health program while maintaining good coordination between the mental health and primary care providers. Use caution in prescribing a regimen containing efavirenz for patients with serious depression, bipolar disorder, or schizophrenia.*
- **Cognitive impairment** *If patients have difficulty remembering appointments or medication, or demonstrate confusion, poor comprehension, or disorientation, evaluate their cognitive ability.* Cognitive impairment may be associated with mental illness, chronic substance abuse, AIDS-related dementia, and/or OIs. Accurate diagnosis may require specialty evaluation.
- **Hepatitis** HIV and hepatitis B (HBV) or C (HCV) are chronic, potentially fatal diseases that can be symbiotic. Treatment of these liver diseases in patients with co-occurring HIV is important. Persons engaging in IDU are at increased risk for HCV and HBV. Morbidity and mortality risks for HIV-infected unstably housed people are amplified by limited access to HCV diagnostic testing and restrictive eligibility criteria for treatment. *Be aware of the association between antiretroviral drugs and hepatotoxicity; carefully monitor liver enzymes during ART* (see <http://aidsinfo.nih.gov/guidelines>). Abrupt cessation of antiretroviral medications that also treat hepatitis B may cause serious hepatocellular damage resulting from reactivation of HBV; patients should be advised against self-discontinuation and carefully monitored during interruption in HBV treatment. Although referral of HIV-infected patients with hepatitis to a hepatologist is the standard of care, lack of access to specialists experienced in the treatment of comorbid HIV and hepatitis has prompted some HIV clinics to provide hepatitis B and C treatment. If access to a specialist is a problem, initial evaluation should include: hepatitis C viral load (RNA quantitative assay), hepatitis C genotype to identify subtype and likelihood of

response to treatment, Alfaetoprotein (AFP), and liver tests including GGT, CBC, metabolic panel, and RUQ U/S to evaluate for hepatoma/HCC/cirrhosis. Nursing and psychosocial support are essential in order to assess each patient's response to treatment (Clanon, Mueller, & Harank, 2005). *For better treatment outcomes, facilitate access to supportive housing and behavioral health care.*

To reduce risks of treatment-related depression, *seek a psychiatric consultation prior to initiating HCV therapy, especially for patients with a known history of suicidal ideation or attempt. For patients with co-occurring alcoholism, use behavioral contracts or other strategies concurrently with HCV treatment to promote sobriety and reduce risk of liver damage. When initiating ART in a patient with HIV/HBV coinfection, consider including lamivudine, tenofovir, emtricitabine – three antiretroviral agents that are active against HBV – as part of a fully suppressive antiretroviral regimen. In general, treatment of these patients requires careful follow-up and consultation with a specialist, as they may be more likely to develop drug-related liver complications. Ensure that all patients are immunized against HBV, especially injection drug users; and immunize seronegative patients against hepatitis A (HAV).* Recognize that the cost of HBV/HAV vaccines and HCV/HBV treatment may be prohibitive for uninsured patients.

- **Tuberculosis** The association between TB, HIV infection, and homelessness is well documented (McElroy et al., 2003; Moss et al., 2000; Zolopa et al., 1994). Growing numbers of HIV-infected persons have contributed to the resurgence of TB in the United States, and homeless shelters are common sites of TB transmission (as well as correctional facilities where unstably housed persons may spend time). HIV co-infection substantially increases the risk of progression from latent TB infection to active TB. Recommended control measures include *more frequent screening of HIV-infected unstably housed persons for TB infection, initiation of treatment for latent TB for any HIV-infected person with a positive tuberculin skin test, and directly observed TB therapy for HIV-infected persons with active TB to promote treatment adherence and reduce the risk of drug resistant organisms* (Moss et al., 2000). Rifampin is not recommended for treatment of latent TB, but the rifamycin class of drugs is the cornerstone of treatment for active TB disease and should be used for patients with HIV and active TB. Rifapentine has fewer drug-drug interactions and should be substituted instead of rifampin for patients taking certain ART including PIs, NNRTIs, integrase inhibitors, CCR5 inhibitors. TB/HIV co-infected patients should be managed in collaboration between the HIV primary care physician and a TB specialist. The local or state health departments are typically able to provide assistance and medications free of charge to the patient, as well as DOT and investigation of contacts to the patient who may have been exposed to HIV.
- **Abuse** Unstably housed individuals with HIV may be at risk for various kinds of abuse from other unstably housed people and shelter staff who find out they are infected. A significant number of these patients also have a history of physical or sexual abuse that may have precipitated homelessness. *Work with all service providers in clinics and shelters to protect unstably housed patients from physical assault and verbal abuse.*
- **Pregnancy** *Ensure access to contraception to prevent unwanted pregnancies.* Provide hormonal contraception (medroxyprogesterone acetate q3 mo, patch, or pill) as well as condoms and alternative barrier

methods (i.e. female condom, diaphragm if desired). HIV-positive pregnant women should receive ART for themselves and to prevent transmission of infection to the fetus. When selecting an ART combination for pregnant women, clinicians should consider the known safety, efficacy, and pharmaceutical data on use during pregnancy for each agent.<sup>8</sup> Many are highly motivated to protect their baby, but women with other children may not agree to treatment that includes residential care. (Family-based treatment centers that permit substance-using mothers to bring one or more children to live with them in a therapeutic residential drug treatment community are disappearing for lack of funding.) *Develop good consulting relationships with obstetricians, including academic departments of obstetrics, to help pregnant unstably housed patients with HIV.* Be knowledgeable about national guidelines for the treatment of HIV-infected pregnant women (DHHS, Panel on Treatment of HIV-Infected Pregnant Women and Prevention of Perinatal Transmission, 2012). *Work with case managers to facilitate Medicaid enrollment of infants born to HIV-infected mothers so there will be no delay in obtaining zidovudine postnatally.* Be aware of drug-drug interactions between certain contraceptive medications and some ART medications that could decrease the efficacy of the contraception; encourage the use of condoms for all women for the protective effect against transmitting HIV as well as its use as a barrier form of birth control.

- **Lack of transportation** Many poor and unstably housed people cannot access health services because they lack transportation for trips to and from medical appointments. This can present serious barriers to HIV testing and care. Even if there is public transportation convenient to the clinic, persons who are illiterate or non-English speaking may not be able to read the signs at bus or subway stops or on the bus/train/etc. to be able to navigate from one stop to another. *Become familiar with transportation resources in your community; show them how to use public transportation by pointing out landmarks, colors, pointing out different stops, etc. or provide transportation assistance/carfare to facilitate appropriate follow-up care.* All state Medicaid programs are required to provide non-emergency medical transportation (NEMT) to approved health services. Each state is responsible for designing and operating its own NEMT; programs differ from state to state. (For a list of medical transportation contacts in each state, see: <http://web1.ctaa.org/webmodules/webarticles/anmviewer.asp?a=104&z=5>)
- **Lack of stable housing** HIV treatment and retention in care are extremely difficult for individuals without stable housing. Meeting their needs for food and shelter leaves little time for medical appointments. Lack of privacy, risk of abuse, theft of medications with street value, and no place to lie down during the day compound discomforts associated with HIV and ART. Unstably housed persons need a stable residence and routine in order to begin the process of recovery. Stable housing has the potential to reduce HIV risk behaviors, morbidity and mortality (Kidder et al., 2007; Aidala, 2006). Unfortunately, in many communities, housing is simply not available for unstably housed persons with HIV; in other places, the only way unstably housed adults unaccompanied by children can get housing is if they are HIV positive. Sometimes the partner of an HIV-infected person who is HIV-

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<sup>8</sup> For information about the safety and efficacy of particular ART medications during pregnancy, see current HIV treatment guidelines, including perinatal guidelines at [www.aidsinfo.nih.gov](http://www.aidsinfo.nih.gov). Information about recent research findings is available at [www.hopkins-hivguide.org/](http://www.hopkins-hivguide.org/).

negative or untested desperately tries to get infected in order to qualify for housing and other benefits. It is essential that HIV education and prevention measures are provided to partners of infected persons and all options for potential housing of discordant couples should be thoroughly explored to prevent further transmission. Individuals with HIV may also choose to sleep outside to be with a partner, at risk to their own health.

*Strongly advocate for low-barrier subsidized housing in your community for people living on the streets or in shelters, with no pre-requisite to achieve sobriety or attain a level of stability before housing is offered.*

Despite some availability of transitional housing for HIV-infected individuals in larger metropolitan areas, insufficient housing stock, long waiting lists, and policies that exclude active substance users or ex-inmates limit access for unstably housed people in many communities. In rural areas, housing assistance may be even less available. Most housing, rehabilitation, or transitional programs available to unstably housed persons with HIV infection require sobriety for admission or continued residence. Such supports become attainable only when unstably housed individuals with co-occurring addiction disorders become too ill to support a habit, often at a time far advanced in the course of HIV infection (O'Connell and Lebow, 1992). The federal Fair Housing Act prevents discrimination based on health history, including mental illness and addiction. Nevertheless, some local communities and permanent housing programs, continue to use "housing readiness" as a subjective measure of appropriateness for housing.

- **Financial barriers to HIV care** Efforts to deliver quality health care to unstably housed individuals with HIV/AIDS are also hampered by barriers to obtaining public benefits, including health insurance coverage and disability assistance.

***Excessive documentation requirements*** Many states and localities require extensive documentation, including photo identification, birth certificates, Social Security cards, pay stubs, etc., to verify eligibility for entitlement programs such as Medicaid and Supplemental Security Income (SSI), which is linked to Medicaid eligibility in most states. Proof of identity, residence and income is difficult to come by for someone without a home, a car or continuous employment. Obtaining required documentation is often costly, time-consuming, and intimidating. Unstably housed people may have trouble obtaining transportation to various agencies where required documents are available, or cannot get there during working hours without losing their jobs, or are unable to pay fees required for copies. *Facilitate transportation and access to community-based organizations that can assist patients with eligibility and enrollment in HIV benefits.* Even if they are able to get required documentation, unstably housed individuals may not have a safe place to keep it. Personal papers are often stolen or lost in moving from place to place on foot. *If possible, assist unstably housed patients by offering to maintain a certified copy of essential documents in their clinic or agency records. Lack of required documentation to confirm eligibility is the most frequently cited obstacle to Medicaid enrollment for unstably housed people* (Post, 2001).

***Eligibility exclusions*** It is important to realize that some unstably housed people (particularly adults unaccompanied by children) may not qualify for public health insurance; over 62% of clients served by the HRSA Health Care for the Homeless program are uninsured (HRSA, 2011). Following the passage of the Patient Protection and Affordable Care Act of 2010, not all states opted to expand Medicaid

eligibility to all adults earning at or below 138% of the federal poverty level. For many unstably housed people, SSI is the only door to Medicaid. SSI regulations still exclude persons with asymptomatic HIV or those with disabling addictions who lack sufficient evidence of co-occurring impairments that meet federal disability criteria. Only CDC's AIDS-defining diagnoses are considered sufficient evidence of permanent disability, despite the fact that many persons with chronic fatigue and other constitutional symptoms are too incapacitated to engage in gainful employment. Moreover, unstably housed disability claimants are denied benefits at significantly higher rates than other claimants, often for failure to negotiate the arduous application process and inadequate documentation of impairments by medical providers, rather than for lack of severe medical impairments that meet the Social Security Administration's (SSA) disability criteria (O'Connell, Zevin, Quick, & Post, 2007; Post, 2001).

*Facilitate applications for disability assistance and SSI-related Medicaid.* Keep detailed records of all patients' functional impairments. Develop a working relationship with your local SSA Disability Determination Services office. Secure a representative for unstably housed patients to help them apply for federal disability benefits (SSI/SSDI). Ensure that consultative examinations are conducted by physicians with significant experience in treating unstably housed patients. Advocate for all patients to obtain needed health care, regardless of their insurance status (for guidance in appropriate documentation of impairments to expedite disability benefits, see O'Connell et al., 2007).

*Seek Ryan White CARE services for patients with no source of coverage or limited coverage for HIV care.* The Ryan White HIV/AIDS program<sup>9</sup> is the third largest source of federal funding for HIV/AIDS care in the U.S. after Medicare and Medicaid. Most Ryan White funding is provided to states (57% in FY 2012), followed by cities (28%), with the remainder provided directly to organizations (Kaiser Family Foundation, 2013). Some states and localities supplement federal Ryan White funds. Ryan White funding can be used to provide outpatient and ambulatory health services, medications, pharmaceutical assistance, oral health care, early intervention services, health insurance premium and cost sharing assistance for low-income individuals, home health care, medical nutrition therapy, hospice services, home and community based health services, mental health services, substance abuse outpatient care, and medical case management, including treatment adherence services. However, Ryan White is not an entitlement program, and covered services are not guaranteed to all eligible persons; jurisdictions and organizations that receive funding and the level of funding received are determined by HRSA and annual Congressional appropriations.

- **Stigmatization** Strong stigmas against HIV and homelessness, particularly in smaller communities and rural areas, result in extreme marginalization of HIV-positive unstably housed individuals. This in turn can lead to reduced self-esteem, often exacerbating self-destructive behaviors (e.g., substance abuse, sex work, and neglect of their mental or physical health). Sexual minorities and immigrants with limited English proficiency are especially vulnerable to stigmatization and low self-esteem. Fear of abuse and eviction from shelter motivates many HIV-infected unstably housed patients to conceal their diagnosis.

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<sup>9</sup> The Ryan White HIV/AIDS program, first enacted in 1990, was most recently reauthorized through 2009 by the Ryan White HIV/AIDS Treatment Modernization Act of 2006. The program is administered by the Health Resources and Services Administration, DHHS. More information about Ryan White is available at <http://hab.hrsa.gov/abouthab/index.html>.

*Educate shelter staff about HIV/AIDS and explore any concerns they may have. Provide nonjudgmental, compassionate care and offer social support to unstably housed individuals, especially those with HIV/AIDS. Identify community resources that welcome unstably housed individuals and will be the most appropriate referral resources for this population.*

- **Incarceration** Many unstably housed people are frequently arrested or incarcerated for loitering, sleeping, urinating or drinking in public places—activities that are permissible in the privacy of a home. A number of them contract HIV and hepatitis or are exposed to TB while in prison. Periods of detention or incarceration can also interrupt continuity of care for pre-existing conditions. *Develop collaborative relationships with correctional facilities to assure appropriate discharge planning and continuity of care following release. HIV screening programs and efforts to ensure effective and timely linkage to HIV medical and support services at release are critical to helping the patient engage in HIV care and access needed medical care to decrease morbidity and mortality. Many public health departments have agreements with local correctional facilities and are granted access to inmates to provide education, counseling, and sometimes even HIV treatment while incarcerated.*

- **Special populations:**

***Unstably housed women*** Some clinic settings are dominated by male patients, which can be intimidating for unstably housed women, many of whom have a history of physical/sexual abuse. Increasing heterosexual transmission of HIV associated with sexual abuse, sex work, and IV drug use warrants programs specifically targeted to unstably housed women who engage in these behaviors and may also be harder to reach than men and may require more intensive services. *Offer social support and counseling through a weekly women's group or one-on-one sessions. If high-risk sexual behavior is perceived as necessary to meet basic survival needs, try to engage the patient in services and benefits programs and find other ways to meet basic needs through community support.* If high-risk behavior is associated with obtaining a drug on which the patient is dependent, continually offer counseling or detoxification/substance abuse treatment to address their substance abuse. Medical and HIV prevention issues specific to adolescent and older HIV-infected women should be addressed by knowledgeable providers experienced with these populations (DHHS, HRSA, & HAB, 2005; Weinreb, Goldberg, Lessard, Perloff, & Bassuk, 1999).

***Unstably housed youth*** There is a high prevalence of HIV infection among runaway and unstably housed adolescents; HIV seropositivity is associated with intravenous drug use, male homosexual/bisexual activity, prostitution, and history of another sexually transmitted disease (Stricof et al., 1991). Many unstably housed adolescents and youth (ages 14–24) have been abused or neglected. HIV infection identified in 18–20 year olds (ages when most are willing to be tested) is often seen as an asset by unstably housed youth because it may increase their access to services (substance abuse treatment, medical and social services, and shelter). Adolescents and youth tend to be more recently infected than older adults, who are likely to be more acutely ill when identified. Unstably housed adolescents and youth may be developmentally less advanced than peers of the same chronological age; concrete thinking predominates over abstract reasoning skills, according to

providers who are experienced with this population. *When discussing behavioral change with these patients, focus on immediate concerns rather than possible future consequences* (Ammerman et al., 2004).

**Sexual minorities** Unstably housed sexual minorities (lesbian, gay, bisexual, transgender, queer or questioning, and intersex [LGBTQI] persons) need special support to counteract extreme marginalization, victimization, and frequent exclusion from mainstream health care systems. A significant number of unstably housed adolescents and youth are sexual minorities who have been rejected by their families and communities. Victimization, psychopathology, use of addictive substances, and risky behaviors such as multiple sexual partners and sex-for-money or drugs increase these individuals' risk for HIV infection (Ammerman et al., 2004; Cochran, Stewart, Ginzler, & Cauce, 2002). *Create a safe and nondiscriminatory clinical environment for all HIV-infected LGBTQI patients; build trust and rapport with these patients, and assure their access to comprehensive health care and facilitate access to housing.*

Transgender adults and adolescents (male-to-females and female-to-males) are disproportionately affected by homelessness (Spicer, 2010). Injection of hormones or other drugs with nonsterile needles and unprotected sex with infected partners place some of these individuals at especially high risk for HIV (Herbst et al., 2008; Lombardi, 2001; Clements-Nolle, Marx, Guzman, & Katz, 2001). Among sexual minorities, persons with gender variance are least likely to receive appropriate medical care; many have been denied screening and treatment for life-threatening diseases such as cervical cancer and HIV infection. Give these patients the information they need to make informed choices and refer them to providers or community support agencies who specialize in the care of transgender persons. For many transgender patients the only way to become engaged in care is by offering hormonal treatment. Underground selling of hormones and silicone implants are growing markets nationwide. Educate yourself about gender reassignment hormonal treatment (Tom Waddell Health Center, San Francisco Department of Public Health, 2006) or identify providers in your community who are currently experts in this issue and invite them to collaborate in your patient's care. *Educate patients using injected hormones about clean needle exchange, injection site hygiene, and signs of local skin infections or other side effects from the injection.* Prescribe the syringes along with the hormone and *explain gender-related health risks*—e.g., a male taking estrogen may have increased risk for thromboembolism and cervical cancer; a female taking testosterone still requires screening for breast and cervical cancer, and runs the risk of hair loss and early cardiac disease. This information should be conveyed to promote informed choices, not to frighten or dissuade.

**Immigrants** Although unstably housed immigrants from certain areas may be at high risk for HIV (e.g., Africa) and in particular active or latent TB (Mexico, the Philippines, and Southeast Asia), their access to preventive measures, prophylaxis, and treatment may be limited. Undocumented immigrants may be reluctant to seek care for fear of being deported. Language and cultural barriers often compound financial barriers to health care. *Provide linguistically appropriate and culturally competent health services* (see National Health Care for the Homeless Council, 2006). Although immigrants who have been granted asylum may qualify for Medicaid as refugees, many immigrants, undocumented or not, are explicitly barred from the Medicaid program by Federal law (see Post, 2001, p. 16–17). Local health departments can often provide preventive and curative treatment measures free of charge for

certain conditions, in particular communicable diseases that can be transmitted to the community. *Assure access to health care for individuals with infectious diseases, regardless of their immigration status.*

**CASE STUDY: UNSTABLY HOUSED TRANSGENDER ADULT LIVING WITH HIV**

“Peaches” was a 23 year old male-to-female who recently arrived to a major metropolitan city from a southern state. She was referred to an outpatient HIV program by a community organization that assists transgender clients with support services. “Peaches” self-reported being newly diagnosed in the last two months during a DOH testing initiative in her birth state.

The receiving program had difficulty in accessing medical history records, therefore baseline laboratory work and health assessment were completed as a first point of care for newly diagnosed HIV. Lab values revealed a CD4 of 12 and Viral Load of >100,000. “Peaches” denied any symptomatic concerns, but admitted recent treatment for a positive RPR, of which she did not return for continued treatment. She admitted that she was prescribed a regimen; however, she was never able to obtain it related to financial difficulty and admitted concerns of disclosure if discovered with medications.

The medical program and case management program worked closely together to support “Peaches” in the following:

- Priority 1: Obtain temporary housing
- Priority 2: Provide emergency basic necessities (food, toiletries)
- Priority 3: Access eligible medical coverage
- Priority 4: Access mental health/substance abuse/support groups
- Priority 5: Readiness assessment for ART

Available emergency housing was difficult to access for transgender populations as “Peaches” would not be accepted into an all-female shelter and personal safety was a concern for an all-male shelter. Housing programs were exhausted in this large urban city with a waiting list of up to eight years. Basic necessities were available for immediate need; however, access to follow up services were essential afterwards.

The program assessment concluded that immediate start of ART was essential with a concern that loss to follow up would be a potential considering the circumstances. The program was able to obtain an urgent regimen through program assistance as “Peaches” was unable to deliver appropriate documentation for patient assistance programs or emergency ADAP. The program continued to fear loss to follow up without a means of communication or fixed address.

The community support program was able to pair “Peaches” with another transgender person for immediate, safe, temporary housing, but continued to experience difficulties with a long-term plan. ART was initiated with appropriate one month follow up; however, loss to care was experienced afterwards. The community support program was unable to locate “Peaches” through outreach staff or pharmacy tracking. Navigators and community health workers searched local parks, frequented venues, and passed on “word of mouth” messages through the transgender community with no success.

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**FOLLOW-UP**

- **Contact information** *At every visit, seek contact information (telephone/cell phone numbers, mailing/email addresses) for the patient, a family member or friend with a stable address, the shelter where the patient is currently staying or other location where s/he might be found, and for the patient’s case manager and health care providers. A clinician should be available to the patient via beeper or other means, 24 hours a day.*
- **More frequent follow-up** *Try to see unstably housed patients more frequently, especially early in the course of care and treatment. Most HIV patients are told to return monthly; unstably housed patients should return within 1–2 weeks. A plan to facilitate their return to the clinic should be developed at that first visit and active outreach may be needed to ensure they return. Follow-up intervals also depend on comorbidities. Contact the patient a few days after starting medications to ask how they are doing, provide interim support, and schedule a return visit within a week. Review adherence; give the patient a pillbox, if desired. At the beginning of a therapeutic relationship, reinforce the patient’s understanding of the plan of care repeatedly. At each visit, ask if medications were missed and if so, why they were missed and what happened (e.g., stolen, forgot to take them while binging) (refer to Adherence Monitoring section). Communicate in a non-judgmental way so the patient will feel at ease discussing their barriers and concerns and feel comfortable returning to each visit. Frequent positive and supportive contact encourages patient bonding and willingness to return to the clinic on a drop-in basis. Let unstably housed clients come back as frequently as is comfortable for them. Be mindful that relationship-building is as important as primary care interventions and may be more time-consuming initially.*
- **Drop-in system** *Create a routine drop-in time at primary care clinics (avoid Monday holidays), with no appointment required for new patients. Encourage routine follow-up for established patients, supplemented by an open-door policy for drop-ins. A drop-in system is far more effective than appointments for people who are unstably housed or whose lives are unscheduled and chaotic.*
- **Help with appointments** *Help patients make and keep clinical appointments and routinely remind them of their appointments. Find out what their regular commitments are (e.g., when and where they receive wages or disability checks) and at what time(s) of day they can come to the clinic. Recognize that an unstably housed patient may be forced to miss a meal at a soup kitchen if the clinic appointment runs past serving hours. In communities where the number of unstably housed individuals far exceeds available shelter beds, competition for such beds can be significant, requiring individuals to line up in the late afternoon to secure a bed. Consequently, afternoon primary care appointments can be problematic, forcing patients to choose between their provider and having a safe place to sleep that evening.*
- **Incentives** *Provide personal hygiene items, meal or transportation vouchers, and/or cash incentives for use of services at least once weekly. Provide incentives for every kept appointment or group meeting attended—e.g., carfare plus a meal voucher (“carefare”). Escort each patient to the first clinic appointment and provide support or guidance for navigating the health system; explain how to obtain carfare for the next visit and demonstrate how to use the meal voucher. Provide a client advocate/navigator to*

*accompany the patient to referrals such as appointments for MRI, colposcopy, or ambulatory surgery. Be the family member or friend most people call on if they have to do something frightening or unpleasant.*

- **Transportation** *Use incentives and/or vouchers that can be used to overcome transportation barriers. Provide transportation to and from specialty referrals. Arrange to pick up new patients and those unable to come to the primary care clinic on their own.*
- **Outreach & intensive case management** *Provide medical outreach to unstably housed HIV-infected individuals—on the streets, in shelters, in drop-in centers or transitional/long-term housing for unstably housed people living with AIDS. Outreach services that include case management, nutrition supplementation, harm-reduction education, needle exchange, and provision of personal hygiene items and/or cash incentives for use of services at least once weekly have been demonstrated to result in improved access to regular health care and higher utilization of PCP prophylaxis and antiretroviral medications (Kushel et al., 2006; Cunningham et al., 2005; Bamberger et al., 2000). Use a clinical team to support the patient, encourage his/her active involvement in their own care (self-management), and promote continuity of care, which is essential for good HIV care.*

*Visit unstably housed patients who are hospitalized daily if possible to reinforce engagement, facilitate discharge planning, identify and address their unmet needs, and promote better follow-up care (e.g., call the library, help patients get methadone/nicotine patches, talk with patients about where to go after they leave the hospital). Encourage discharge to a nursing/recuperative care facility, if available. Establish and maintain contact with other service providers who know your patient (make phone calls and have lunch from time to time). Ask the patient to sign a release, in compliance with HIPAA requirements, so that you can share health information with other clinicians and service providers when s/he leaves your care. Information sharing is important, particularly during transition from homelessness to transitional or permanent housing, to identify any variations in the patient's behavior that may indicate a change in health status or problems with adherence. Be compassionate and caring.*

- **Peer support** *Offer group activities to create positive peer support for patients having difficulty with ART—e.g., start a “breakfast club;” provide food and encourage members to take medications together; provide transportation to community-based organizations that have support groups for persons living with HIV; include staff to work with clients on medical and social issues in a social setting. This helps patients establish a regular wake-up time, begin the day with food and medications, share resources and coping strategies, and receive both medical and social support. Create opportunities for group leisure or quality of life activities to develop or deepen support networks and promote a sense of self-worth.*

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**WEBSITES**

AIDS Information, US Government	<a href="http://www.aids.gov/index.html">www.aids.gov/index.html</a>
AIDS Education & Training Centers National Resource Center, HRSA	<a href="http://www.aids-ed.org/">www.aids-ed.org/</a>
HIV/AIDS and Drug Abuse, NIDA	<a href="http://www.drugabuse.gov/DrugPages/HIV.html">www.drugabuse.gov/DrugPages/HIV.html</a>
HIV/AIDS clinical guidelines, NIH	<a href="http://www.aidsinfo.nih.gov/Guidelines/">www.aidsinfo.nih.gov/Guidelines/</a>
HIV/AIDS information, CDC	<a href="http://www.cdc.gov/hiv/">www.cdc.gov/hiv/</a>
Housing Opportunities for Persons With AIDS (HOPWA)	<a href="http://www.hud.gov/offices/cpd/aidshousing/index.cfm">www.hud.gov/offices/cpd/aidshousing/index.cfm</a>
Ryan White HIV/AIDS Program	<a href="http://hab.hrsa.gov/about/">http://hab.hrsa.gov/about/</a>
Henry J. Kaiser Family Foundation HIV Policy Program	<a href="http://www.kff.org/about/hivpolicy.cfm">www.kff.org/about/hivpolicy.cfm</a>
International AIDS Society	<a href="http://www.iasociety.org/">www.iasociety.org/</a>
National AIDS Housing Coalition	<a href="http://nationalaidshousing.org/">http://nationalaidshousing.org/</a>
National Health Care for the Homeless Council HIV/AIDS Resources	<a href="http://www.nhchc.org/HIVresources.html">www.nhchc.org/HIVresources.html</a>
World Health Organization HIV/AIDS site	<a href="http://www.who.int/hiv/en/">www.who.int/hiv/en/</a>

**ABOUT THE HCH CLINICIANS' NETWORK**

Founded in 1994, the Health Care for the Homeless Clinicians' Network is a national membership association that unites care providers from many disciplines who are committed to improving the health and quality of life of unstably housed people. The Network is engaged in a broad range of activities including publications, training, research and peer support. The Network is operated by the National Health Care for the Homeless Council, and our efforts are supported by the Health Resources and Services Administration, the Substance Abuse and Mental Health Services Administration, and member dues. The Network is governed by a Steering Committee representing diverse community and professional interests. To become a member or order Network materials, call (615) 226-2292 or write to [network@nhchc.org](mailto:network@nhchc.org). Please visit our Web site at [www.nhchc.org](http://www.nhchc.org).