

**ADAPTING YOUR PRACTICE:
TREATMENT AND RECOMMENDATIONS
FOR HOMELESS PATIENTS
WITH DIABETES MELLITUS**

HCH CLINICIANS' NETWORK

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DISCLAIMER

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PREFACE

Clinicians practicing in Health Care for the Homeless (HCH) projects* routinely adapt their medical practice to better suit the needs of individuals experiencing homelessness. Standard practice guidelines fail to take into consideration the unique challenges faced by those experiencing homelessness, which impacts the patient's ability to adhere to the plan of care. Recognizing the gap between standard clinical practice guidelines and medical practice by those serving homeless people, the Health Care for the Homeless Clinicians' Network Steering Committee made adaptation of clinical practice guidelines one of its top priorities.

The Network assembled an advisory committee of primary care providers working in Health Care for the Homeless. Over the course of several months, the Committee provided specific recommendations for clinical practice taking into consideration their experience and outcomes with this special population.

We hope that these recommendations offer clear guidance to primary care providers who are working with homeless people, and improve the quality of care to those with diabetes mellitus.

Laura M. Gillis

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INTRODUCTION

Clinical practice guidelines for people who have diabetes mellitus and are homeless are the same as for the general population. Primary care providers who routinely care for homeless people, however, recognize the need to take the patient's living situation and co-occurring disorders into consideration when developing a plan of care. These simple adaptations of established guidelines might improve treatment adherence and patient outcomes. The treatment recommendations in this guide were compiled in order to assist providers who care for homeless adults with diabetes. The American Diabetes Association's *Standards of medical care for patients with diabetes mellitus* is the source document for these adaptations (ADA, 2002). Recommendations found in the ADA diabetes guidelines are not restated in this document except to clarify a particular adaptation.

DIAGNOSIS AND EVALUATION

History

- Assess where the patient is living; e.g., shelter, on the street, doubled up.*
- Ask when the patient last had a permanent or regular place to live, and if they ever had their own apartment or home.
- Ask the patient about eating habits and patterns including nutrition status, weight history, and food sources, e.g., soup kitchens. Many food sources supply only one meal a day so that the homeless person must visit multiple places for food.
- Ask the patient if they have access to food and water when they want or need it, e.g., snacks.
- Assess and often reassess how much walking the patient is doing as well as the condition and fit of footwear.
- Ask patient if they have ever had foot sores or ulcers or any problems with their feet.
- Obtain a sexual history including contraception and reproductive history.
- Ascertain the patient's current medications and how they are obtained.
- Explore the use of tobacco, alcohol and illicit drugs, and the frequency and route of use. Assess the patient's readiness to change behavior.
- Assess patient's literacy level.

* "Doubled up" is 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.

Diagnostic Tests

- Perform dipstick urinalysis to test for ketones, glucose, protein and sediment.
- To assess kidney status, the best test for homeless patients is the albumin-to-creatinine ratio (urine for microalbumin) in a random, spot collection. If the test is elevated, repeat. If the test is again elevated, do a 24-hour urine for protein. Consideration of the patient's living situation and ability to do the 24-hour collection must be weighed carefully before ordering this test.
- Since homeless patients can be transient, consider using a diabetic monitoring card to record labs and exams (Ridolfo and Proffitt, 2000). Patients can use this card to share information with their next health care provider and it is also useful as a self-management tool. Designed specifically for homeless individuals with diabetes, the monitoring card is available through the HCH Clinicians' Network (cards come 100 to a pack; for a sample or to order call 615 226-2292).

PLAN AND MANAGEMENT

At each visit the clinician should:

- Assess the patient's current living situation including where they live, how long they have lived there, who lives with them and their relationship to that person.
- Assess the psychological, sociological and economic factors that may affect the management plan. Refer the patient to community resources, as needed, e.g., Department of Social Services.
- Assess food sources.

☛ **Tip:**

Patients receiving food stamps or other public entitlements may exhaust their resources by the end of the month.

Patient Education and Self-Management

Patients who are dependent on tobacco, alcohol or illicit drugs may not be ready or able to abstain from these substances. Helping the patient move in that direction may be the final goal. Many therapeutic interventions help decrease health risks until they are ready to change their behavior.

Motivational interviewing, for example, is a successful technique to reduce risk of complications (Miller and Rollnick, 2002).

Providing culturally suitable education that involves the patient in the learning process is critical. Successful approaches to teaching homeless persons include peer interaction and support groups.

Diet and Nutrition

Homeless persons are usually dependent on soup kitchens or shelters for meals, and it may be difficult to plan meals to coincide with insulin administration. Clinicians should work with shelters and soup kitchens to promote healthy food choices and to provide supplemental snacks to those with diabetes.

The clinician should:

- Assess where and when the patient is eating, and the frequency and healthfulness of meals.
- Provide suitable documentation for the patient with diabetes to use at food pantries, soup kitchens and shelters to obtain healthful snacks and foods.
- Encourage the patient to make the best choices that they can from what is available. For example, taking a smaller portion of macaroni and cheese and a larger portion of vegetables.
- Ask the patient to save part of the meal for later when only one or two meals are available per day.
- Provide multivitamins with minerals.

Oral Health

Access to preventive dental services is often difficult for patients experiencing homelessness. The clinician can:

- Provide toothbrushes, toothpaste and dental floss.
- Teach basic oral health care, e.g., demonstrating proper brushing and flossing.
- Advise patient to rinse mouth with water after eating when brushing is not possible.

Exercise

For people who are homeless, walking is their typical exercise and they usually carry their belongings, which increases the exercise effort. Patients with peripheral neuropathy or foot problems should take precautionary measures such as proper footwear. The clinician should:

- Chart how far the client walks daily.
- When appropriate, suggest that the patient take steps instead of elevators.
- Assess the condition of the patient's shoes and socks.

ADAPTING YOUR PRACTICE

Foot care

Foot problems often result from prolonged standing and walking. When combined with diabetes, the patient is at high-risk for foot ulcers. The clinician should:

- Encourage patient to keep feet dry and take shoes and socks off at night.
- Instruct patient to wash socks nightly, if possible, and dry thoroughly.
- Teach patients how to examine their feet. If they cannot see the bottom of their feet, teach the patient how to use a mirror. Urge patients to visit the clinic immediately if they have open foot sores or areas of redness.
- Identify community resources for free shoes and socks, and refer patients as needed. Maintain a supply of clean socks to give to patients as needed.
- Secure a podiatrist for referrals and consultation.

Insulin therapy

Tight glycemic control can increase the risk of hypoglycemic episodes in homeless individuals due to a variety of physiological and compliance factors including excessive caloric expenditures, e.g., extensive walking; uncertain caloric intake, e.g., availability, content and timing of meals; and behavioral factors that may negatively effect compliance, e.g., mental illness and substance abuse.

Tip:

Tight glycemic control may be dangerous for patients who cannot reliably predict the number or timing of meals that they will eat that day.

- Consider using a basal insulin such as Lantis with Lispro insulin or regular insulin before meals to accommodate erratic eating patterns.
- Consider having the patient use a sliding scale if food sources are unreliable or unavailable.
- Consider decreasing insulin dosage when food is unavailable.
- Use premixed insulin when possible.
- If they are walking a great deal, encourage patient to inject insulin into the abdomen to avoid erratic absorption.
- Remind the patient to rotate injection sites to avoid lipodystrophy.

Insulin storage

Since patients have little or no access to refrigeration, consider these options:

- Assess if the patient can use a shelter's refrigerator and if the insulin will be accessible when needed.
- Store the patient's insulin at the clinic and dispense one vial at a time.
- Suggest that the patient store insulin in an insulated lunch bag.
- Provide insulated lunch bags for insulin storage.

- Avoid pre-filling syringes and storing them in a communal refrigerator, e.g., in a shelter, where the medication integrity cannot be monitored safely.
- Recommend that patients avoid carrying insulin inside pants or shirt pockets.

Syringe storage

- Consider providing alcohol wipes to clean needles for reuse.
- Caution patients to store syringes securely since they can be stolen for illicit drug use.
- Advise patients that a pharmacy may provide one or two syringes if needed. The patient will need to show the pharmacist their insulin supply.

Oral anti-diabetic agents

People experiencing homelessness have high rates of hepatitis and a high incidence of substance use disorders (50 percent nationally, Koegel, Burnam, and Baumohl, 1996) with associated liver dysfunction. The clinician should:

- Assess liver function on a regular basis.
- Screen carefully for alcohol abuse before starting metformin due to an increased risk of lactic acidosis.

For the patient taking sulfonylureas, the clinician should:

- Recommend that the patient hold or decrease the dosage when food is unavailable to avoid hypoglycemic episodes.

Self-monitoring of blood glucose

Although self-monitoring of blood glucose has replaced urine testing to measure glucose control, patients who are homeless often have difficulty obtaining glucometers or strips. If self-monitoring is not possible, the clinician should:

- Teach patient to use urine strips to check glucose.
- Recommend frequent clinic visits to monitor blood glucose and complications.

☛ **Tip:**

Urine and visual blood glucose strips can be cut in half to double the supply.

Contingency plan for managing hypoglycemic episodes

People who are homeless often do not have family members or friends available to help in an emergency. Clinicians should teach shelter staff the signs and symptoms of hypoglycemia. This is critical since hypoglycemia may be mistaken for intoxication. If the patient is conscious and able to swallow, the shelter staff can give oral glucose, e.g., an orange drink. If the patient is

unresponsive or unable to swallow, the shelter staff should immediately call 911 for help.

If the patient has family members or friends available, they should be taught to recognize the signs and symptoms of hypoglycemia and how to administer a subcutaneous or intramuscular injection of glucagon should the patient ever be unresponsive or unable to swallow.

MANAGEMENT OF ASSOCIATED PROBLEMS AND COMPLICATIONS

Diabetic foot ulcers

Sufficient bed rest may not be possible for the homeless person since many shelters are not open during the day. Clinicians need to work with shelter staff and other homeless service providers to ensure that convalescent care is available. Convalescent care may include access to a motel room or 24-hour shelter beds for those needing bed rest.

Diabetic retinopathy

Access to eye exams may be difficult for homeless patients due to a lack of insurance. Networking with local ophthalmologists to obtain free exams has been successful in several communities.

Hypertension

When considering using a diuretic for blood pressure control, the clinician should:

- Assess the patient's access to bathroom facilities.
- Assess the patient's access to water and other fluids if the patient is living outside in a hot climate.

Lipid management

Consider screening liver functioning more frequently for patients using statins for hyperlipidemia if the patient is abusing alcohol and other drugs.

Oral health

Poor oral hygiene is common among homeless people. Dental abscesses and periodontal disease contribute to poor glycemic control. The clinician should identify free or discounted dental services available within the community. Dental schools, public health departments and private dentists who volunteer their services can be valuable resources for homeless people.

Alcohol dependence

For the patient who is not ready or able to abstain from alcohol use:

- Stress the importance of eating.
- Encourage the patient to seek shelter on nights when weather is extreme, e.g., cold, hot or wet.
- Consider using motivational interviewing techniques and risk reduction methods to guide the patient toward abstinence.
- Suggest more frequent office visits to encourage goal setting and closely monitor the diabetes progression.

Nicotine dependence

For the patient who is dependent on nicotine, the clinician should refer or enroll the patient in a smoking cessation program. Smoking causes vasoconstriction that increases the risk of frostbite. For patients living outside or in poorly heated places, the clinician should:

- Explain the relationship between smoking, vasoconstriction and diabetes.
- Recommend that the patient always wear gloves and carry an extra pair of socks to change into when feet get damp.

Smoking increases risk of pulmonary infection and may contribute to vitamin C deficiencies that can affect wound healing. The clinician should:

- Stress hand washing to decrease the transmission of organisms.
- Provide annual influenza vaccines and encourage the administration of the pneumococcal vaccine.
- Teach the patient about good food sources of vitamin C.
- Consider providing vitamin supplements.

Mental Impairment

About 25 percent of homeless people have at some time experienced severe mental disorders such as schizophrenia, major depression or bipolar disorder (Koegel, et al, 1996). Homeless patients may have developmental delays and impaired cognitive functioning. Patients with mental impairments may experience the following:

- Impaired thinking processes that result in disorientation and a disorganized lifestyle.
- Lack of motivation to seek help.
- Lack of insight or understanding of their illness, which may result in denial of the need for services.
- Negative experiences with mental health institutions.
- Unpleasant medication side effects.

For providers not in health care for the homeless projects that offer mental health services, connecting with other agencies that offer counseling and therapy will help greatly in managing the plan for the homeless patient with a mental impairment.

Other co-morbidities

Hypertension, dyslipidemia and cardiovascular disease often co-occur in persons with diabetes. Lowering blood pressure with regimes based on antihypertensive medications and aspirin therapy have been shown to be effective in lowering cardiovascular problems and in slowing progressions of nephropathy and retinopathy. In addition, lipid-lowering measures should be included. Clinicians should consider managing cardiovascular problems simultaneously in individuals with diabetes.

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SUGGESTED RESOURCES

- McMurray-Avila, M. (2001). *Organizing health services for homeless people* second edition. Nashville: National Health Care for the Homeless Council, Inc.

WEB SITES

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| American Diabetes Association | www.diabetes.org |
| American Academy of Family Physicians | www.aafp.org |
| Health Disparities Collaboratives | www.healthdisparities.net |
| National Guideline Clearinghouse | www.guideline.gov |
| National Health Care for the Homeless Council | www.nhchc.org |

ABOUT THE HCH CLINICIANS' NETWORK

Founded in 1994, the Health Care for the Homeless Clinicians' Network is a national membership association that unites hands-on care providers from many disciplines who are committed to improving the health and quality of life of our homeless neighbors. The Network is engaged in a broad range of activity including publications, training, research and peer support. The National Health Care for the Homeless Council, Inc., operates the Network and the Bureau of Primary Health Care, the Substance Abuse and Mental Health Services Administration, and member dues support our efforts. A Steering Committee that represents diverse community and professional interests governs the Network.

To join the Network or order additional materials about homelessness, call 615 226-2292 or write network@nhchc.org. Please visit our Web site at www.nhchc.org.