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ELDER CARE

A Resource for Interprofessional Providers

Homelessness and Older Adults

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(*see Author's Note on term use)

The Homeless Population is Getting Older

Adults who experience homelessness are getting older and are at high risk for overall poor health.

- In the US, among single homeless adults, about half are 50 years old or older.
- Of that cohort, nearly half first became homeless AFTER the age of 50.
- Older adults who are homeless experience health conditions like cognitive and physical impairments on average 20 years earlier than those who are housed.
- By 2050, it is estimated that over 95,000 older adults will be living without stable housing.

The Unique Needs of the Homeless

Older adults who are homeless have unique medical presentations that are frequently missed. This can cause homeless patients to return to Emergency Departments (ED) with the same health concerns at over 10 times the rate of the housed. While other health factors exist, this sheet focuses on three common causes for the sometimes startlingly different presentations:

- 1) Traumatic Brain Injuries (TBI)
- 2) Lack of access to clean water
- 3) Environmental risk factors

Violence is Common

In a recent study of homeless older adults (mean age of the respondents was 52 years old):

- 88% had faced the risk of death on the streets, many in multiple ways.
- Of those who faced the risk of death, 71.4% had been attacked and/or threatened with death by a

stranger, 42.9% had been attacked and/or threatened with death by someone they knew, and 39.3% had been attacked and/or threatened with death by an intimate partner.

Because of their violent world:

- Over half of homeless older adults will have had a TBI in the past year. Since many average ten years or more experiencing homelessness they may well have a history of multiple TBIs.
- Recurrent TBIs are an important cause of morbidity and mortality in homeless older adults.
- Subdural hematomas (SDH) occur in homeless TBI patients at a much higher rate.
- Because the most common symptoms of a SDH are behavioral disturbances followed by headaches, these types of injuries in this patient population may be mistaken for intoxication.

Clean Water is hard to find

Recent estimates that focused on homeless adults and marginally housed determined that at least 930,000 people in US cities lack sustained access to at least basic sanitation and 610,000 to at least basic water access. The effects of climate change are highly likely to make things much worse.

For older adults who are homeless:

- A primary tool for the prevention of heat-related illness is access to water.
- As the individuals living in encampment systems are increasingly marginalized, so are their sources of water.
- Those with a history of a TBI or TBIs will have a harder time safely regulating their body temperature.

TIPS

- Assess homeless older adults for previous TBIs or a recent TBI they may still be recovering from, even if that is not their primary complaint.
- Expect homeless older adults to be chronically dehydrated and assess how that dehydration affects their medications. In addition, assess for electrolyte imbalances caused by chronic dehydration.
- Ask homeless older adults where they slept the previous night (or nights) and expect those sleeping in cars, tents and temporary structures to be chronically exposed to carbon monoxide.

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- Pre-existing psychiatric illness triples the risk of death in a heat wave and the mean prevalence of any current mental disorder in homeless adults is estimated to be 76.2%.
- The majority homeless adults do not recognize the most common signs of heat-related illness. Because of this, they will generally wait until their condition is dire to seek treatment.

Environmental Risk Factors

Environmental exposures are rarely recognized as causes of medical issues in homeless older adults. Linking to the discussed barriers to reliable clean water, a study in Phoenix, Arizona found that those who live in homeless encampments frequently rely on rain or flood water obtained from contaminated surfaces, such as water that collects in retention zones, for their drinking, cleaning, and cooling needs. They also are exposed to a variety of other environmental dangers:

- Acute and chronic carbon monoxide poisoning is a potential risk for those who live in tents, tunnels, and in places hidden by tarps and plastic sheeting that are heated by combustible materials.
- Acute and chronic carbon monoxide poisoning is also a potential risk for those who live in their cars. Vehicular homelessness (individuals and households living in cars, vans, and other vehicles) is one of the fastest growing segments of the unhoused population. It is estimated that 60% of the unhoused population in Los Angeles live in a vehicle.
- Many carbon monoxide poisoning patients present with a headache and confusion while over 30% will present with delayed onset neuropsychiatric symptoms. These symptoms include cognitive and personality changes, dementia, psychosis, parkinsonism, amnesia, depression, and incontinence. Varying degrees of neuropsychological impairment are also seen with chronic carbon monoxide poisoning.

***Author's note:** The author does extensive work with this population and surveys over 200 people annually regarding what term they would like used to describe them. For the past 20 years, "homeless" has been the term they prefer.

References and Resources

Vance, Chris, et al. *GIMME SHELTER: A Physician's Guide to Identifying the Unique Medical Needs of the Homeless*. 1st ed., vol. 1, CCHS Foundation, 2023.

Complete list of sources may be found at:

<https://docs.google.com/document/d/1R-0iYVKipfOniLNx24gL9VpkHbaNUqM7VHUiVWCXJCU/edit?usp=sharing>

- In addition to carbon monoxide, hydrogen cyanide is a significant source of concern for the homeless population. When homeless adults burn various nitrogen-containing materials picked from the trash, both natural fibers (such as wool and silk) and synthetic materials (such as polyurethane and polyacrylonitrile) can produce toxic levels of hydrogen cyanide.
- Aging deteriorates the functional connectivity of basal ganglia which are particularly sensitive to cyanide toxicity. Chronic cyanide exposure, especially in older adults, can lead to vague symptoms such as a headache, abnormal taste, vomiting, chest pain, and anxiety. Lower-level cyanide poisoning has been recognized as a cause of permanent neurological disability, ranging from extrapyramidal syndromes to post-anoxic vegetative states. In addition, both parkinsonian symptoms and dystonia have been observed in chronic cyanide poisoning.

Conclusion

Homeless older adults often return to EDs with the same health concerns at over 10 times the rate of housed individuals. Why? Simply put, since their world is so different from those who are housed, practitioners may miss one or more of the common root causes of their conditions. For example, the effects of acute TBIs and recurrent TBIs may be mistaken for intoxication. The effects of chronic dehydration and electrolyte imbalances caused by chronic dehydration may be mistaken for anxiety, depression, or cognitive impairment. And the extensive effects of environmental exposures, like chronic carbon monoxide exposure, may be mistaken for hypochondriasis or other neuropsychiatric conditions. In short, adding questions about violence, access to water, and environmental exposures to the history of an older adult who is homeless is vital to understanding their health situation.

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