

Heatwaves: A Silent Killer for Europe's Homeless Population

Written by The Life Science Feed Editorial Team · Published 17 August 2026 · Edited by Mara Voss

Heatwaves are no longer an anomaly but a recurring feature of European summers, posing a significant public health threat. While the general population faces risks, the homeless experience a disproportionate burden, often with fatal consequences. Their lack of shelter, limited access to hydration, and pre-existing health conditions create a lethal combination when temperatures soar.

Clinicians must understand the specific vulnerabilities of this population to mitigate the severe health impacts of extreme heat, which range from direct heat-related illnesses to exacerbations of underlying chronic diseases.

KEY TAKEAWAYS

- **The Pivot:** Heatwaves disproportionately affect homeless individuals, turning environmental stress into a direct medical crisis due to unique social and physiological vulnerabilities.
- **The Data:** Homeless individuals face significantly higher rates of heat-related illness and death compared to the general population during periods of extreme heat.
- **The Action:** GPs and specialists should proactively identify homeless patients, educate them on heat safety, and ensure access to cooling centers, hydration, and continuity of care for chronic conditions.

Homeless individuals contend with a constant struggle for survival, a struggle intensified by extreme weather events. During heatwaves, this population faces a confluence of factors that elevate their risk of severe illness and death. Exposure to direct sunlight for prolonged periods, without respite, leads to rapid dehydration and heat exhaustion. Many lack access to safe, cool spaces, making the street their only option, even as temperatures climb to dangerous levels.

The physiological toll of homelessness also predisposes individuals to heat-related complications. Malnutrition, chronic sleep deprivation, and a high prevalence of underlying medical conditions, such as cardiovascular disease, respiratory illnesses, and diabetes, impair the body's ability to thermoregulate. These conditions are often poorly managed, further compromising resilience against environmental stressors. For instance, the impact of heatwaves on EMS calls for COPD highlights how environmental factors directly influence chronic disease outcomes.

The Direct Health Consequences

Heatstroke represents the most severe manifestation of heat-related illness, a medical emergency characterized by a core body temperature exceeding 40°C (104°F) and central nervous system dysfunction. Homeless individuals are particularly susceptible due to prolonged exposure and limited ability to cool down. Early symptoms like muscle cramps, dizziness, and nausea often go unaddressed, progressing rapidly to confusion, seizures, and loss of consciousness. Without immediate intervention, heatstroke can lead to multi-organ failure and death.

Dehydration is another pervasive issue. Access to clean, potable water is often scarce, and many homeless individuals may prioritize other immediate needs over hydration. Chronic dehydration can exacerbate existing renal conditions, precipitate acute kidney injury, and worsen cardiovascular strain. The use of certain medications, including diuretics, anticholinergics, and some psychotropic drugs, can further impair thermoregulation and increase dehydration risk, a critical consideration for clinicians managing this population. The Oxford Handbook of Clinical Medicine offers concise guidance on managing such complex patient presentations.

Exacerbation of Chronic Conditions

Beyond direct heat-related illnesses, heatwaves significantly worsen pre-existing chronic conditions prevalent among the homeless. Cardiovascular disease, for example, is aggravated by the increased cardiac output required to dissipate heat, placing additional stress on an already compromised heart. Patients with heart failure may experience decompensation, while those with coronary artery disease face an elevated risk of myocardial infarction. Similarly, respiratory conditions like asthma and COPD can be exacerbated by poor air quality, which often accompanies heatwaves, and by the physiological strain of heat exposure.

Mental health conditions, highly prevalent among the homeless, also complicate heat management. Individuals with severe mental illness may have impaired judgment, making them less likely to seek shelter or hydration. Some psychotropic medications can interfere with thermoregulation, increasing vulnerability to heatstroke. Substance use disorders further compound these risks, as intoxication can impair awareness of heat-related symptoms and reduce the capacity for self-care. This complex relationship between mental health, medication effects, and substance use highlights the need for integrated care approaches, as discussed in our piece on prescribing 'cool' for vulnerable populations.

Preventative Strategies and Clinical Role

Preventative strategies are paramount for mitigating the impact of heatwaves on homeless populations. These include establishing accessible cooling centers, distributing water, and providing educational materials on heat safety. Clinicians play a vital role in identifying homeless patients, assessing their risk factors, and offering practical advice. This involves counseling on staying hydrated, seeking shade, and recognizing early symptoms of heat-related illness. Regular check-ins for those with chronic conditions are essential, especially during periods of extreme heat, to adjust medications if necessary and monitor for signs of decompensation.

But the systemic challenges remain. Many homeless individuals lack consistent access to healthcare, making proactive interventions difficult. The transient nature of their lives means that follow-up care is often interrupted. Public health initiatives must prioritize outreach programs that bring services directly to where homeless individuals congregate, ensuring that vital resources and medical attention are not out of reach. Understanding the broader context of reporting for routinely collected data can help improve the evidence base for these interventions.

CLINICAL IMPLICATIONS

The escalating frequency and intensity of heatwaves demand a more robust clinical response for Europe's homeless population. GPs and specialists cannot simply treat heatstroke as an isolated event; it is often the acute presentation of chronic neglect and systemic vulnerability. Proactive screening for homelessness and associated comorbidities should become standard practice, particularly in urban centers.

Medication reviews are critical. Many commonly prescribed drugs, from antipsychotics to beta-blockers, can impair thermoregulation or increase dehydration risk. Clinicians must consider these interactions and adjust regimens or provide specific counseling during heatwave alerts. This requires a thorough understanding of polypharmacy in a population with limited adherence support.

Beyond individual patient care, the medical community has a role in advocating for public health infrastructure. This means pushing for more accessible cooling centers, safe overnight shelters, and consistent hydration programs. Relying solely on emergency services during a crisis is a reactive, rather than preventative, approach that ultimately fails the most vulnerable.

The challenge extends beyond immediate medical intervention. Addressing the root causes of homelessness, including mental health support, addiction services, and affordable housing, is the only long-term solution. Until then, clinicians must remain vigilant, recognizing that a heatwave for many means a fight for survival, often without the basic resources to win.

EDITORIAL & AI STANDARDS

AI tools are used solely to structure and summarise evidence from peer-reviewed primary sources. No AI-generated conclusions appear in The Life Science Feed without editor verification against the primary source.

REFERENCES

1. O'Connor FG. Heat-Related Illnesses. *Ann Intern Med.* 2025;178(7):ITC97-ITC112. doi:10.7326/ANNALS-25-01958
2. Barletta JF, Palmieri TL, Toomey SA, Harrod CG, Murthy S, Bailey H. Management of Heat-Related Illness and Injury in the ICU: A Concise Definitive Review. *Crit Care Med.* 2024;52(3):362-375. doi:10.1097/CCM.0000000000006170
3. Sorensen C, Hess J. Treatment and Prevention of Heat-Related Illness. *N Engl J Med.* 2022;387(15):1404-1413. doi:10.1056/NEJMcp2210623
4. Gardner J, Caley L, Poche M, Trammell S. Heat-related illness. *Nursing.* 2024;54(7):16-23. doi:10.1097/NSG.0000000000000029
5. Gauer R, Meyers BK. Heat-Related Illnesses. *Am Fam Physician.* 2019;99(8):482-489. PMID:30990296
6. Cheshire WP Jr. Thermoregulatory disorders and illness related to heat and cold stress. *Auton Neurosci.* 2016;196:91-104. doi:10.1016/j.autneu.2016.01.001

LICENCE & RIGHTS

© 2026 The Life Science Feed. All rights reserved. This content is produced for medical education purposes. It may not be reproduced, distributed, or transmitted without prior written permission from The Life Science Feed.

MEDICAL DISCLAIMER

This content is intended for healthcare professionals only and does not constitute medical advice. Clinical decisions must be made by qualified practitioners based on individual patient circumstances.

FOLLOW THE LIFE SCIENCE FEED

Instagram @lifesciencefeed **LinkedIn** linkedin.com/company/thelifesciencefeed

thelifesciencefeed.com