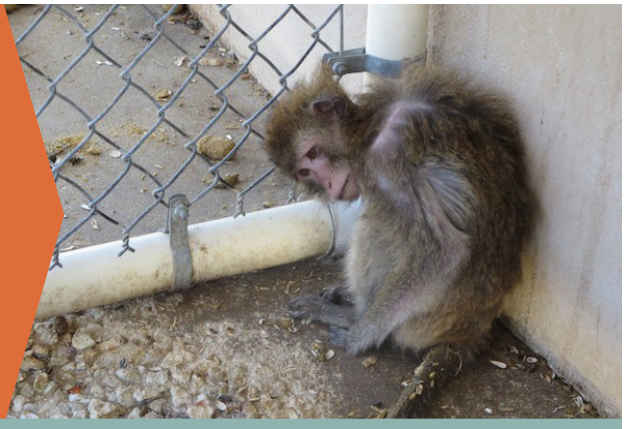


MELIOIDOSIS

Burkholderia pseudomallei, the bacterium that causes melioidosis, can establish itself in soil and water, meaning one infected shipment could permanently seed U.S. environments.



Decades of Warnings, No Reliable Test

Melioidosis is classified as a Tier 1 select agent because of its lethality and potential use in bioterrorism.¹ The bacterium has been detected sporadically in imported primates for more than five decades.² Today, nearly 60% of monkeys entering U.S. laboratories come from regions where the pathogen is endemic, and beginning in 2020, a surge of monkeys infected with the bacterium was reported.³ Yet despite this longstanding threat, the Centers for Disease Control and Prevention (CDC) has no reliable diagnostic tool to detect infected animals before they are cleared for use in research.

Quarantine Doesn't Contain It

Monkeys carrying *Burkholderia pseudomallei* may look healthy while shedding the pathogen in urine, feces, saliva, and blood. With incubation periods ranging from weeks to years, infections often evade the CDC's 31-day quarantine. In 2021, a macaque imported from Cambodia died of melioidosis while under federal quarantine; the rest of the shipment was released because definitive diagnostics do not exist.³ This was not an isolated event. Subsequent shipments of Cambodian macaques also contained animals whose infections had gone undetected during quarantine.

Exposure Begins Overseas

Melioidosis is endemic in Cambodia, Indonesia, the Philippines, and Vietnam,⁴ so every shipment from these countries carries an inherent risk. A 2016 survey found that up to 76% of macaques in Indonesian breeding centers tested positive for *B. pseudomallei*,⁵ revealing the fragility of "captive-bred" claims and the absence of safeguards before export.

The Consequences

- **Compromised science:** Hidden infections can silently reshape immune responses in monkeys and distort results, confounding experiments in ways that experimenters may not detect. Data drawn from such animals—used to guide drug approvals and safety evaluations—are fundamentally unreliable. When *B. pseudomallei* passes through quarantine, the credibility of the science collapses along with biosecurity.
- **Worker risk:** In humans, melioidosis can cause pneumonia, sepsis, and abscesses. The disease is resistant to many antibiotics⁶ and has a fatality rate of up to 90%.⁷ Even routine husbandry, handling, or cage cleaning can expose staff to a potentially lethal infection.
- **Environmental threat:** Unlike most laboratory pathogens, *B. pseudomallei* can persist indefinitely in soil and water. If released, it could take hold in U.S. ecosystems, particularly in Southern climates, where warming conditions heighten survival odds.⁸ Recent reports link animal trade—including of primates—to melioidosis cases outside endemic regions, underscoring the ongoing risk of introduction through imported animals.⁹

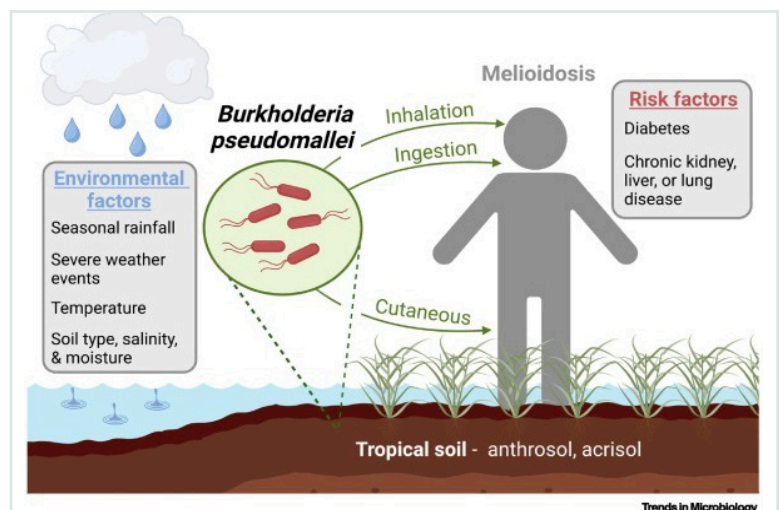


Fig 1. *Burkholderia pseudomallei*, Phillips, Erica D. et al. *Trends in Microbiology*, Volume 32, Issue 1, 105–106. CC BY 4.0 Deed | Attribution 4.0 International | Creative Commons | <https://creativecommons.org/licenses/by/4.0/>

The warning signs are clear.

The outcome now depends on whether action is taken to prevent melioidosis from becoming an entrenched crisis.

Endnotes

- ¹ Code of Federal Regulations. Select Agents and Toxins Title 42, Part 73: 2005. Accessed May 2, 2025. <https://www.ecfr.gov/current/title-42/chapter-I/subchapter-F/part-73>
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- ⁸ Portacci K, Rooney AP, Dobos R. Assessing the potential for *Burkholderia pseudomallei* in the southeastern United States. *J Am Vet Med Assoc.* 2017;250(2):153-159. doi:10.2460/javma.250.2.153
- ⁹ Norman FF, Blair BM, Chamorro-Tojeiro S, González-Sanz M, Chen LH. The evolving global epidemiology of human melioidosis: A narrative review. *Pathogens.* 2024;13(11):926. doi:10.3390/pathogens13110926