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**Press release**  
**For immediate release**

**Melioidosis in Mali:**  
**Study shows endemic occurrence in Africa for the first time**

Graz, November 7<sup>th</sup> 2025: A recent study published in *The Lancet Global Health* has uncovered the first known cluster of melioidosis cases in Mali. It shows that this often fatal but neglected infectious disease may be more widespread in West Africa than previously thought. It is also the largest series of melioidosis cases ever diagnosed in sub-Saharan Africa.

In a joint study by Médecins Sans Frontières (MSF) and the Medical University of Graz, 31 cases of melioidosis were identified in children under the age of five who were treated at a single pediatric hospital in Koutiala, in southern Mali. The authors report a mortality rate of around 60 percent, which corresponds to the lethality in children observed in parts of Southeast Asia, where the disease is well established.

**Caused by bacteria**

Melioidosis is caused by the bacterium *Burkholderia pseudomallei*, which is found in the environment. Infection usually occurs through contact with contaminated soil or water, especially during heavy rainfall. The clinical picture is extremely variable, ranging from skin infections to abscesses in internal organs and pneumonia to sepsis. Human-to-human transmission is extremely rare. While the disease is common in tropical regions of Asia and the Pacific, affecting all age groups—especially older people—it has long been considered rare in Africa. This is probably due to limited diagnostic capabilities and low clinical awareness of the disease.

Through genetic analysis of the isolated pathogens, the study was able to show that very different strains of *B. pseudomallei* occur in Mali. “This suggests that the pathogen has been endemic in the region for a long time and was not introduced recently,” explains Sabine Lichtenegger from the Diagnostic and Research Institute of Hygiene, Microbiology and Environmental Medicine at the Medical University of Graz. The authors also conducted annual incidence estimates for the whole population that indicate that the disease burden in Mali may rival that of some of the world’s most endemic regions in Asia-Pacific.

“Our findings suggest that melioidosis has probably been present silently and undetected in Mali - and possibly throughout West Africa - for a very long time,” reports Ivo Steinmetz, head of the Diagnostic and Research Institute of Hygiene, Microbiology and Environmental Medicine. “This could be just the tip of a much larger iceberg.”

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## Resistance as a problem

Since *B. pseudomallei* is naturally resistant to many common antibiotics, a laboratory-confirmed diagnosis is crucial for life-saving treatment. However, in most African countries, there are very few laboratories that can identify the pathogen. The study therefore highlights the urgent need for better diagnostic infrastructure, clinical training, and epidemiological surveillance of the disease. This need is further exacerbated by the sharp increase in diabetes in Africa, as it increases the risk of melioidosis twelvefold.

Despite the high mortality rate and the disproportionate risk to poor and rural populations, melioidosis is not yet included in the World Health Organization (WHO) list of neglected tropical diseases. Model-based estimates suggest up to 89,000 deaths worldwide per year - a figure comparable to that of measles.

## Call for affordable diagnosis

The authors call for the introduction of simple, inexpensive diagnostic procedures and the validation of new, antibody-based rapid tests for use in African healthcare facilities. They also emphasize the importance of further research to determine the full extent of the disease on the African continent. "This discovery should be a wake-up call," summarizes Ivo Steinmetz.

"Melioidosis is not a problem limited to Asia or Australia. It exists in Africa, it can be fatal, and we must no longer overlook it," the scientist continues. The authors of the study hope that their findings will contribute to melioidosis being recognized as a neglected tropical disease, thereby making more resources available for diagnostics and research to protect vulnerable populations in Africa and other parts of the world.

Link to the publication:

<https://www.sciencedirect.com/science/article/pii/S2214109X25003171?via%3Dihub>

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