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## **Anthrax outbreak associated with handling and consuming meat from animals that died suddenly, Kanungu District, Uganda, June–November 2024**

*Wednesday, October 15, 2025 9:45 AM (15 minutes)*

**Background:** Anthrax is a recurrent zoonotic threat in Uganda, with eleven outbreaks reported in 2024. On September 17, 2024, the Ministry of Health confirmed two human anthrax deaths in Kanungu District—the first recorded outbreak in the district. We investigated to determine the scope, identify risk factors, and recommend evidence-based control measures.

**Methods:** We defined a suspected cutaneous anthrax case as skin lesions (papule, vesicle, or eschar) with  $\geq 2$  of skin itching, reddening, lymphadenopathy, fever, or malaise. Suspected gastrointestinal anthrax was abdominal pain with  $\geq 2$  of vomiting, diarrhea, fever, or loss of appetite in Kanungu residents (June 1–November 4). Confirmation required PCR detection of *Bacillus anthracis*. In a 1:2 unmatched case-control study, we enrolled all cases and asymptomatic neighbors from the two most affected sub-counties. Logistic regression identified risk factors.

**Results:** We identified 90 cases (86 suspected and 4 confirmed); 80% cutaneous, 11% gastrointestinal, 9% both. Males were more affected (AR=48/100,000) than females (AR=15/100,000). The case fatality rate was 6.7%. Bugongi (AR=257/100,000) and Katete (AR=224/100,000) were most affected. Risk factors included consuming meat from suddenly dead animals (aOR=5.8, 95% CI: 2.7–12.0), handling their carcasses (aOR=9.3, 95% CI: 2.5–15.0), and lower education (aOR=6.2, 95% CI: 2.5–15.0). Most cases bought meat from one butcher sourcing such animals.

**Conclusion:** The outbreak was linked to consuming and handling meat from animals that died suddenly. We recommend mandatory pre-slaughter inspections, safe carcass disposal, and targeted community education.

### **Keywords**

Anthrax, *Bacillus anthracis*, cutaneous, gastrointestinal, Uganda, zoonotic disease, Epidemiology

### **Registration ID**

OHS25-41

### **Professional Status of the Speaker**

Graduate Student

### **Junior Scientist Status**

Yes, I am a Junior Scientist.

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