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Sphingobacterium hotanense Infections in Immunocompromised Patients, United States

Appendix

Lab Methods

When grown on sheep's blood agar and chocolate blood agar (Appendix Figure, panels A and C), *S. hotanense* colonies are cream to yellow in color, convex, and circular with entire margins. Isolates also grow on Gram-negative selective eosin methylene blue (EMB) agar (Appendix Figure, panel B), appearing pink to colorless, indicating their inability to ferment lactose.

Susceptibility Testing

Between July 2020 and July 2025, 10 *S. hotanense* isolates were identified and tested for antimicrobial susceptibility in the Division of Clinical Microbiology at our institution, which performs both clinical and reference laboratory functionality. These isolates were referred to our laboratory for identification from external, client institutions based across the United States and globally. As such, we do not have access to clinical information for the patients from which the isolates were cultured, apart from susceptibilities of the isolate. Of the susceptibilities reported, 100% were susceptible to the β-lactams tested (ceftazidime, cefepime, meropenem, and piperacillin-tazobactam), the fluoroquinolones tested (levofloxacin, ciprofloxacin), and trimethoprim-sulfamethoxazole. Consistent with the published literature, all isolates tested in this 5-year cohort were resistant to the aminoglycosides tested (amikacin, gentamicin, tobramycin) (*1*,*2*). We noted variable susceptibility to aztreonam, with 30% susceptible, 30% intermediate, and 40% resistant. In our laboratory, first- through third-generation cephalosporins were not included in the susceptibility panel. Although CLSI provides breakpoints for representatives of

all cephalosporin generations within the non-*Enterobacterales* group (to which *Sphingobacterium hotanense* belongs), our laboratory follows CLSI M100 Table 1 guidance, which outlines tiers of antimicrobial agents recommended for routine reporting. Accordingly, only tier 1 and 2 agents are included in our testing panel, which prioritizes agents with demonstrated clinical relevance, reliable interpretive criteria, and expected activity for the organism group (*3*,*4*).

References

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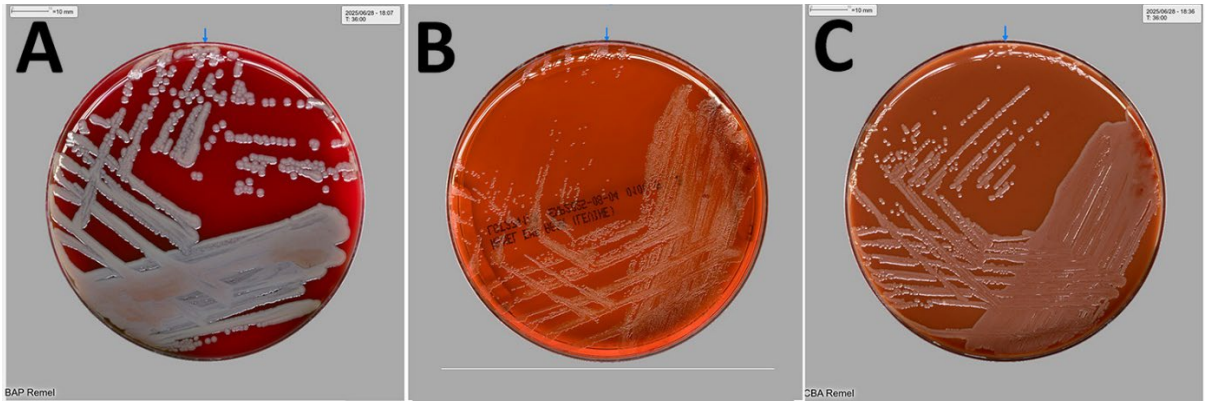

Appendix Figure. Growth of *Sphingobacterium hotanense* on various culture media after 36 hours of incubation. A) Blood agar showing smooth, creamy, opaque colonies with non-hemolytic growth. B) Eosin methylene blue (EMB) agar demonstrating minimal colony pigmentation (non-lactose fermenting). C) Chocolate agar with robust growth of moist, spreading colonies.