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I am writing to express my strong support for the proposed AI-driven surgical site infection (SSI) surveillance initiative led by myself, Dr. Elizabeth Wick, Dr. Logan Pierce, and our interdisciplinary team.

I am the Medical Director for Hospital Epidemiology and Infection Prevention for the adult services at UCSF Medical Center and Professor of Clinical Medicine in the Department of Medicine, Division of Infectious Diseases. I have served as the Co-Chair of the Healthcare Infection Control Practices Advisory Committee (HICPAC), a group that advises the CDC and U.S. Department of Health and Human Services on issues related to healthcare epidemiology and infection prevention and control and co-led the creation of the Infectious Disease Society of America (IDSA) and the Society for Healthcare Epidemiology of America (SHEA) compendium of strategies for prevention of major healthcare-associated infections, including surgical site infections. This publication, "A Compendium of Strategies to Prevent Healthcare-Associated Infections in Acute Care Hospitals", has been promoted by IDSA, SHEA, the Centers for Disease Control and Prevention, The Joint Commission, and the American Hospital Association as a tool to assist acute care hospitals to translate evidence-based recommendations for detection and prevention of healthcare-associated infections into practice.

 I firmly believe this project represents a transformative advancement in our ability to detect and mitigate SSIs. SSIs remain a leading cause of postoperative complications, contributing to prolonged hospital stays, increased healthcare costs, and significant patient morbidity. Despite ongoing efforts to refine surveillance methodologies, the current reliance on manual review of clinical data presents substantial challenges, limiting our ability to efficiently and accurately identify infections. Existing semi-automated approaches based on structured data elements, such as microbiology results, have demonstrated limited predictive value, necessitating extensive human effort to confirm true cases.

This proposal leverages artificial intelligence, specifically large language models (LLMs), to enhance our surveillance capabilities by synthesizing structured and unstructured clinical data—including provider notes, microbiology results, and imaging reports—into actionable insights. By reducing the manual review burden and providing infection preventionists with AI-generated clinical summaries, this initiative has the potential to significantly improve both the accuracy and efficiency of SSI detection at UCSF Health. Importantly, it ensures that human expertise remains central
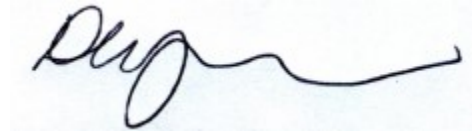
to decision-making, with AI functioning as an assistive tool rather than an autonomous adjudicator.

As a national leader in infection prevention, I recognize the urgency of advancing automated surveillance solutions to address the growing complexity of healthcare-associated infections. This project aligns with our institutional priorities and the national push for enhanced infection prevention strategies. The rigorous validation plan, incorporating retrospective and prospective evaluation, will ensure the reliability and clinical utility of this tool.

I am fully committed to supporting this initiative and working alongside our team to ensure its successful implementation and integration within UCSF Health. I am confident that this AI-driven approach will not only improve our ability to detect SSIs but also serve as a scalable model for other healthcare institutions facing similar challenges.
Please feel free to contact me should you require any additional information.

Sincerely,

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