ACP American College of Physicians Leading Internal Medicine, Improving Lives | Saudi Arabia Chapter

American College of Physician Saudi Chapter
Annual Meeting Poster Competition 2024

ABSTRACT SUBMISSION FORM
Pre-evaluation Phase

Dear respected participants in the ACP Saudi Chapter, kindly fill up this Abstract Submission Form and email to: **acpsaudichapter@gmail.com** **(Deadline: August 15)**

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Presentation type: Please consider this abstract for

☐ **Oral presentation** ■ **Poster presentation**

Participant's Role in this work:

Co-authors

Important rules:

1- **Candidate must be (Medical students – Intern - R1 - R2 - R3 - R4) in Internal Medicine Training Program of SCFHS.**

2- **The submitted abstract was not presented in previous AMTRD nor got published.**

Instructions for abstract construction:

Please use M.S Word, font type Times New Roman, Size 12 and single space. **Maximum number of words is 300.**
Please note that for poster presentations, the post dimensions are: **Width: 150 cm x Height: 120 cm**.
Abstracts to be constructed as follows:

- Title
- Background/Purpose
- Methodology
- Results
- Conclusion

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Please type your abstract information in the space in the next page:

RAPID MOLECULAR DETECTION OF MULTIDRUG-RESISTANT BACTERIA IN DONOR LUNGS AS A STRATEGY TO OPTIMIZE PERIOPERATIVE ANTIBIOTIC PROPHYLAXIS

Abstract: maximum 500 words

Background

In our transplant program, 20% of lung transplant donors carry respiratory carbapenem-resistant (CR) gram-negative bacteria (GNB), most commonly CR *Acinetobacter baumannii*. We describe our experience following the introduction of routine multiplex panel testing in lung transplant donors as a strategy to expedite CR-GNB detection and optimize perioperative antibiotic prophylaxis.

Methods

Retrospective cohort study including 53 adult patients who underwent lung-only transplantation between June 2022 and December 2023 and whose donors had available multiplex panel results.

Results

The most common bacteria identified by the multiplex panel were *Staphylococcus aureus* (n=20), *Acinetobacter baumannii* (n=13), *Klebsiella pneumoniae* (n=13), and *Pseudomonas aeruginosa* (n=10). The panel detected 6/9 *Acinetobacter baumannii*, 2/2 CR *Klebsiella pneumoniae*, 1/1 CR *Pseudomonas aeruginosa*, and 7/8 methicillin-resistant *Staphylococcus aureus* that were grown on conventional cultures, corresponding to negative predictive values of 94%, 100%, 100%, and 98%. IV tigecycline and colistin were each administered as prophylaxis in 17% of patients and novel beta-lactams in 15%.

Conclusion

The multiplex panel rapidly detects donor CR-GNB with a high negative predictive value and resulted in clinical effects of reducing broad-spectrum antibiotic prescriptions and maintaining adequate posttransplant outcomes. Prospective studies with predefined outcomes are needed to compare panel-directed therapy against current standards of care.

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