

# Evaluation Of Diagnostic Considerations In The Evaluation Of Hospital Acquired Pneumonia

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## BACKGROUND

- Hospital-Acquired Pneumonia (HAP), defined as pneumonia that occurs 48 hours or more after hospital admission, is considered a part of the health care-associated infections (HAIs).
- HAIs are one of the top ten causes of death in the United States.
- Diagnosis of HAP is challenging because clinical findings are nonspecific and there is no combination of signs, symptoms, and laboratory or imaging results that can predict this diagnosis with a good sensitivity or specificity.
- This study aims to clarify the prioritization of clinical elements considered in the diagnosis of HAP by physicians at our center.

## METHODS

- Cross-sectional study at a large, tertiary care academic center in Miami, Florida.
- Target population included hospitalists, internal medicine residents, critical care and infectious disease fellows.
- REDCap was used to administer the survey and collect data.
- A rank individual analysis was conducted to assess for the most significant diagnostic criteria overall.
- Kruskal-Wallis analysis was conducted to assess for significance of the individual diagnostic criteria.

## RESULTS

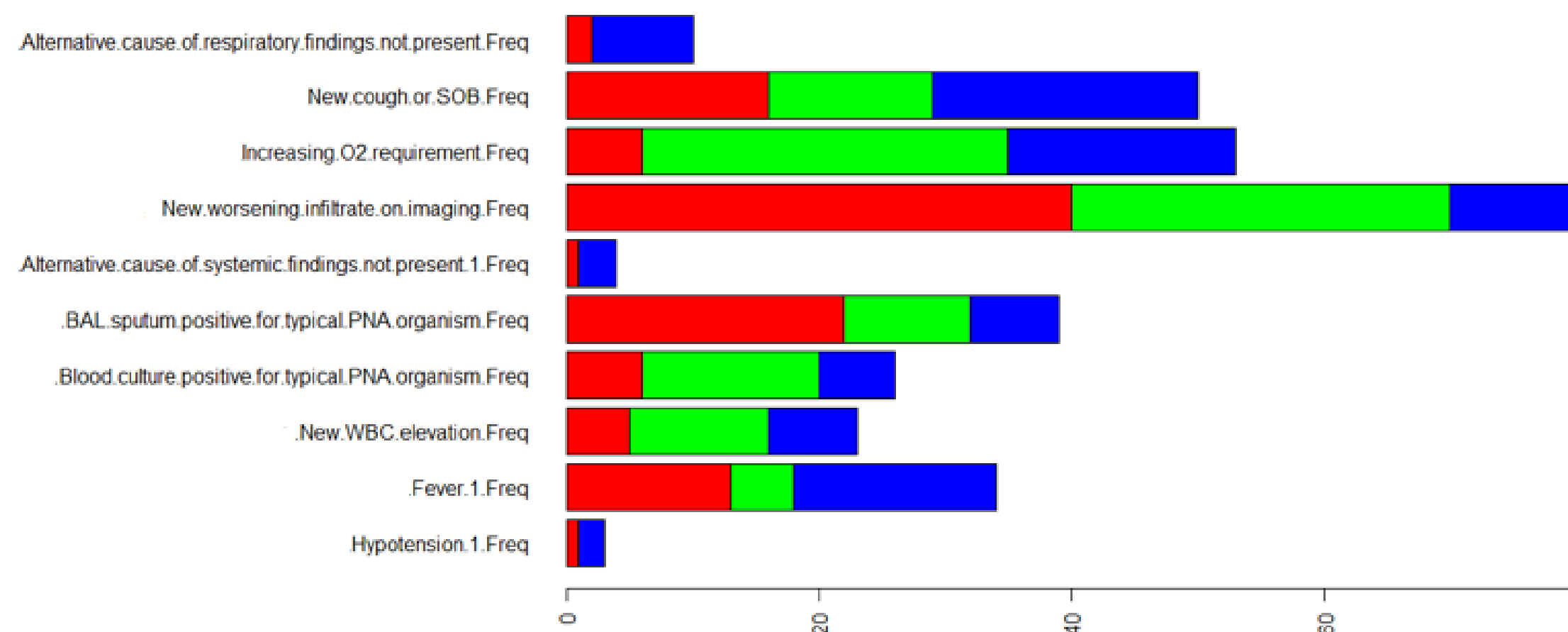


Figure 1: Blot analysis of criteria used in diagnosis of hospital acquired pneumonia

- 130 people responded (45.8% of surveys).
- The presence of a **new or worsening infiltrate on imaging** was selected as most important.
- Fever, a positive respiratory culture, worsening hypoxia and new cough and shortness of breath were in the second tier of important criteria (Figure 1).
- The median number of factors needed to have HAP in the differential diagnosis and start empiric treatment was 3
- The needed number to secure the diagnosis of HAP was 4
- In an immunocompromised patient, the median number of factors needed was 2 (Figure 2).

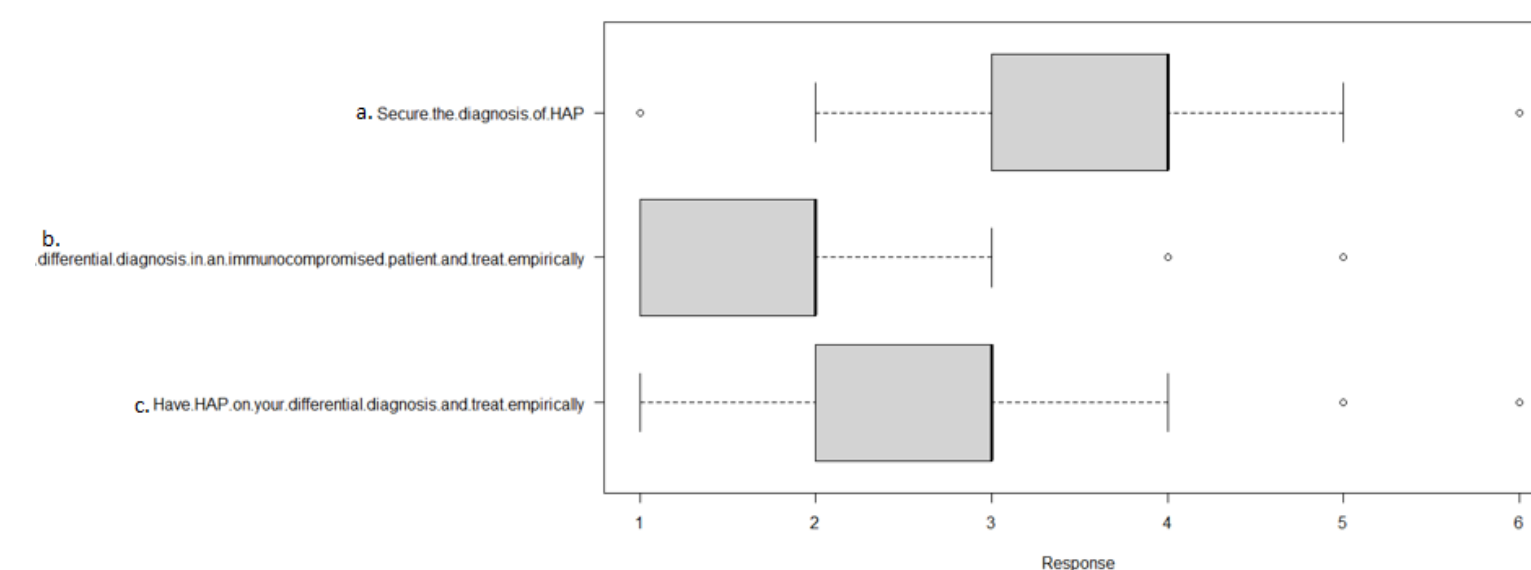


Figure 2: Factors needed for diagnosis of HAP

## CONCLUSIONS

Most highly considered criteria for the diagnosis of HAP are **new or worsening infiltrate on imaging, new or worsening hypoxia, and respiratory cultures with growth of a classical respiratory pathogen.**

## REFERENCES

1. Management of Adults With Hospital-acquired and Ventilator-associated Pneumonia: 2016 Clinical Practice Guidelines by the Infectious Diseases Society of America and the American Thoracic Society. *Clinical Infectious Diseases*, Volume 63, Issue 5, 1 September 2016, Pages e61–e111,