



# ISICEM 41<sup>ST</sup> ANNUAL MEETING

22–25 March 2022, Brussels Belgium

The 22nd–25th March 2022, the 41st edition of the International Symposium on Intensive Care & Emergency Medicine (ISICEM) Congress was held in Brussels. The congress is always held in Brussels and is focused on best practice and management of critically ill patients based on the latest clinical developments including diagnostics and treatment as well as epidemiology and resistance development in connection with fungal infections.

At the meeting this year, there was a participation of approx. 2,000 specialists in intensive therapy.

ISICEM covered, among other things, a review of the recently updated guidelines for the treatment of rare fungal infections, the treatment of candidemia and abdominal candidiasis and the treatment of invasive aspergillosis related to both corona and influenza.

## Highlights from the congress

- Important to treat COVID-19 early in the course.<sup>1</sup>
- Early diagnosis of invasive aspergillosis is associated with increased survival.<sup>2</sup>
- Risk factors for fungal breakthrough infection were reviewed.<sup>3</sup>

## SUMMARY OF THREE POSTERS OF INTEREST

### The rate of secondary infections and diagnostic challenges in critically ill patients with COVID-19<sup>4</sup>

Patients admitted to intensive care with severe SARS-CoV-2 infection frequently present with sepsis. These patients are at a higher risk of developing a secondary infection, but this can be difficult to distinguish from the primary viral infection. Liberal use of broad-spectrum antibiotics can lead to proliferation of antimicrobial resistant organisms. We aimed to identify the rates of bacterial secondary infections and antimicrobial usage in critically ill COVID-19 patients.

**CONCLUSION:** Secondary infections can be difficult to diagnose in the presence of severe COVID-19 disease, with a disproportionately high use of antibiotics relative to positive cultures. Additional diagnostic tools would be useful in this patient population to aid in antimicrobial stewardship.

## Impact of steroid therapy on bacterial and fungal superinfections in patients with severe COVID-19 admitted to ICU<sup>5</sup>

Patients with severe COVID-19 admitted to ICU have an increased risk of bacterial and fungal superinfections. Steroid therapy with dexamethasone is one of the recommended treatments for patients on oxygen therapy. The aim of this study is to evaluate the incidence of superinfections in patients treated with steroids.

**CONCLUSION:** In patients with severe COVID-19 admitted to ICU, steroid therapy seems to be a risk factor for fungal superinfections and associated with *Acinetobacter* spp. superinfections. The duration of the steroid therapy is directly correlated to the number of superinfections for each patient.

## SARS-CoV-2 associated aspergillus and HSV opportunistic infections<sup>6</sup>

SARS-CoV-2 associated hyperinflammatory syndrome (HIS) is a major cause of ARDS and death. The use of corticosteroids (CS) has shown good effect on both attenuation of HIS and outcome. However, CS use has also been associated with increasing incidence of opportunistic infections in SARS-CoV-2 infected patients. We investigated whether opportunistic infections with *Aspergillus* species (Asp) or Herpes Simplex Virus (HSV) were more common after implementation of the RECOVERY trial results.

**CONCLUSION:** We identified a total of 18 (43%) *Aspergillus* positive and 30 (71%) HSV DNA positive BAL results. Despite the retrospective analysis inherent bias, our study suggests a strong correlation between the use of CS and Asp and HSV opportunistic infection in SARS-CoV-2 critical ill patients.

In summary, this congress covered a wide range of topics in intensive care and emergency medicine. Please visit [www.IFIhub.se](http://www.IFIhub.se) for more information and updates regarding invasive fungal infections, including the opportunity to subscribe to Gilead's newsletters.



### References

1. Mehta RM, et al. A shorter symptom onset to remdesivir treatment (SORT) interval is associated with a lower mortality in moderate-to-severe COVID-19: A real-world analysis. *Int J Infect Dis* 2021;106:71-77.
2. Jenks JD, et al. Point-of care Diagnosis of Invasive Aspergillosis in Non-Neutropenic Patients: *Aspergillus* Galactomannan Lateral Flow Assay versus *Aspergillus*-specific Lateral Flow device test in Bronchoalveolar Lavage. *Mycoses* 2019;62(3):230-236.
3. Jenks JD, et al. Breakthrough invasive fungal infections: Who is at risk? *Mycoses* 2020;63(10):1021-1032.
4. McCreath G, et al. The rate of secondary infections and diagnostic challenges in critically ill patients with covid-19. Poster #104 presented at ISICEM, Brussels 2022.
5. Giaccaglia P, et al. Impact of steroid therapy on bacterial and fungal superinfections in patients with severe COVID-19 admitted to ICU. Poster #102 presented at ISICEM, Brussels 2022.
6. Bral P, et al. SARS-CoV-2 associated aspergillus and HSV opportunistic infections. Poster #101 presented at ISICEM, Brussels 2022.