

# 'Co-Vit D' – A retrospective review of Vitamin D as a variable in clinical severity and disease outcome of SARS-CoV-2 infection in an acute Dublin hospital

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## Background

- Vitamin D deficiency is associated with increased risk of acute viral respiratory tract infections.
- With SARS-CoV-2, preventative health measures which may reduce the risk of severity and disease outcome are increasingly needed.
- **The purpose of this study is to determine the prevalence of Vitamin D deficiency and to assess its association with clinical outcome**

## Methods

- All patients admitted with SARS-CoV-2 infection to Connolly Hospital between March-May 2020 were identified.
- Presentation, disease course, treatment and outcomes as well as biochemical data was collected.
- **Levels : adequate (>50), moderate deficiency (<50) and severe deficiency (<30).**

## Results

N=116 patients (M:F 1.7:1).  
 Average age = 54 Yr.  
 26 (22%) → ICU. 22 → RIP (18%)  
 Vitamin D levels were recorded in 84 (72%)  
 Average was 36 (low)

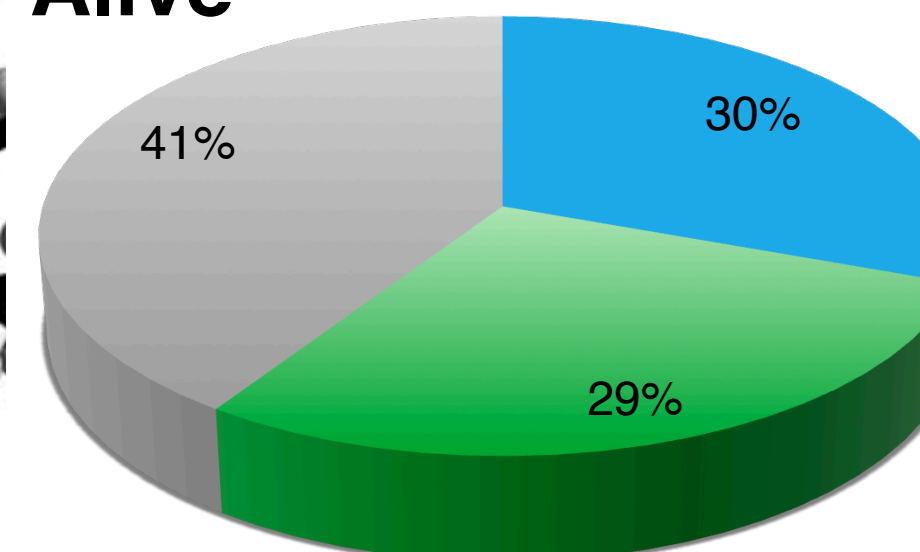
- **45 (53.5%) → severe deficiency**
- 20 (23.8%) → moderate
- 19 (22.6%) → adequate

Mean **Vitamin D levels were lower in those who died from SARS-CoV-2 infection** with a mean value of 25 compared to 38 (p<0.055).

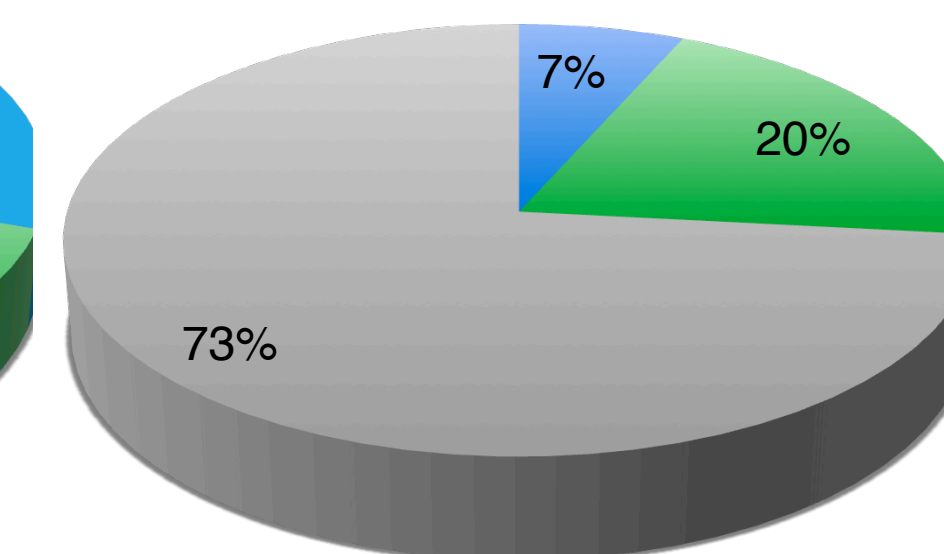
## Conclusion

- We found a higher than expected prevalence of Vitamin D deficiency amongst hospitalised patients with SARS-CoV-2 infection. Severe deficiency was almost twice as common in those who died.
- **National data on Vitamin D deficiency in Ireland found severe deficiency in 6.7 % compared to 53.5% in this population.**
- Prevalence of severe Vitamin D deficiency and worse disease outcomes in this population is notable and warrants further research.

Alive



RIP



■ NORMAL LEVELS  
 ■ MODERATE DEFICIENCY  
 ■ SEVERE DEFICIENCY

## References

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