

MAE SEMINAR

The impact of cruise ships on the 1st wave of COVID-19 in South Australia

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Thursday 27th August 2020, 12:45 – 13:00[Zoom Link](#)

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Alvaro graduated with degrees in Theatre and Film, French Literature and Evolutionary Biology from the University of Kansas. His interests in life sciences brought him to Australia to complete a PhD in dolphin behaviour and acoustics from James Cook University. Following a career change, Alvaro completed a Master of Clinical Epidemiology from the University of Newcastle and went on to become a MAE scholar at the Australian National University. His interests are as diverse as his publications, including topics in insect mating repertoires, dolphin fishery bycatch and lymphatic filariasis in Papua New Guinea. He is currently conducting his MAE placement at SA Health in Adelaide with the COVID-19 epidemiology team.

Abstract

Background: Importation of COVID-19 cases from international cruise ships played an important role in the number of cases notified during the first wave of the pandemic in Australia. This study investigated the contribution that cruise ships had on the number of cases and burden of the disease in South Australia, to inform authorities on the impact that this industry can have in the transmission of novel pathogens, and how to mitigate this impact in the future.

Methods: We conducted a cross-sectional analysis of COVID-19 cases notified in South Australia between 1 January and 10 May 2020 (before ease of social restrictions). We identified as “cruise related” all cases were cruise ship passengers or their secondary cases. We compared age and sex distribution, and disease burden (i.e. hospitalisations and deaths) between cruise related and non-cruise related cases.

Results: Of the 439 total COVID-19 cases reported in South Australia during the study period, 142 (32%) were cruise related. These cases were significantly older (median age = 64 years), than non-cruise related cases (median age = 44 years) ($p < 0.001$). There was no significant difference in sex distribution ($p = 0.57$), or in the proportion of hospitalisations (cruise related: 25% and non-cruise related: 26%; $p = 0.78$), and deaths (cruise related: 0.7% and non-cruise related: 1.4%; $p = 0.45$) between these two groups.

Conclusions: Although there was a significant difference in the age distribution between cruise related and non-cruise related cases, we did not identify a significant difference in the disease burden between these two groups. A closer look at the comorbidities between these two groups may provide an understanding of the potential risk of developing complications due to COVID-19 for cruise passengers.