

### A study looking at preventing respiratory illnesses in aged care using ultraviolet light (PETRA)

## Respiratory viruses and residential aged care:

- Viruses, including those that cause influenza, the common cold and COVID-19, can infect the respiratory system and cause major complications, particularly in people with underlying health conditions and aged over 65 years.
- Residents in aged care homes are more at risk, as communal living can facilitate the rapid spread of many airborne viruses.
- Even prior to the COVID-19 pandemic, hospitalisation frequency for lower respiratory viral infections in Australia's residential aged care population was increasing, alongside mortality rates.<sup>1</sup>
- To reduce the spread of the viruses, we rely on vaccination, good hygiene and distancing ourselves from others when unwell. The PETRA study is harnessing the ability of Ultraviolet C (UVC) light to destroy viruses and bacteria. Using commercially available UVC units, we are investigating the effectiveness of installing these units in aged care homes, and the effects on the number of respiratory illnesses in residents.



- A total of five residential aged care homes across South Australia are participating in the study.
- Three metropolitan and two regional sites





# PETRA



### Flinders University

#### Intervention:

- The study commenced in August 2021 and will run through to the end of Winter 2023.
- A total of 179 units have been installed across the aged care homes, including a combination of fixed and portable UVC units.
- All units were deployed and running by October 2021.
- All sites have dedicated zones that cycle on and off throughout the study period and is designed as a randomised trial

#### Data Capture & Results:

- The study team are collecting de-identified surveillance data on respiratory illness symptoms and testing amongst residents at study sites.
- At present, data has now been captured for the traditional winter/flu season for 2022 and will run through to overlap with the next flu season (2023), therefore allowing the peak respiratory illness seasons to be compared.
- Data analysis will follow, and results will be shared with all participating sites by mid-2024.



We thank all the staff, residents and families at the aged care homes for their support and involvement in this important study.

For more information please visit the study site or email us www.sahmri.org/petra petra-study@sahmri.com

SAHMRI South Australian Health & Medical Research Institute



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