**Introduction**

- Infective endocarditis (IE) is associated with significant morbidity and mortality 1.
- We describe the local epidemiology, clinical characteristics, causative pathogens and clinical outcomes of patients treated for IE in the Sunshine Coast Hospital and Health Service (SCHHS) in Queensland, Australia.

**Methods**

- All patients with definite or probable IE by the modified Duke Criteria 3, over a six year period between 2011-2018 were included in the study.
- Clinical data were obtained from health records and cases were identified using the International Classification of Diseases code for the diagnosis of IE and the Infectious diseases consult database. Human Research Ethics Committee, The Prince Charles Hospital (HREC/17/OPCH/229) provided ethics approval for the study.

**Results**

**Population Demographics and Disease Characteristics**

- One hundred and thirty five (135) patients, 93 (69%) with definite IE and 42 (31%) with probable IE by the modified Duke criteria were included.
- The median age was 69 years (27-93).
- 93 patients (69%) were male.
- History of recreational intravenous drug use (IDU) was present in 30 (22%). Two IDU patients were treated for more than one episode of IE.
- An implantable cardiac device (ICD) was present in 24 patients (18%).
- 38 patients (31%) had prosthetic valve IE.
- *Staphylococcus aureus* was the most common pathogen, followed by *Enterococcus* spp (figure 1).
- 118 patients (87%) underwent a trans-thoracic echocardiogram and 105 patients (78%) also underwent a trans-oesophageal echocardiogram (figure 2). 17 patients (13%) did not undergo any echocardiography.
- 28 patients (21%) had a vegetation >1cm as measured by echocardiography.

**Management and Outcomes**

- Fluoxacillin was the most commonly used antimicrobial, followed by vancomycin. (figure 3)
- 28 patients (21%) were treated with intravenous (IV) antibiotics through our home IV service.
- 35 patients (26%) received oral antibiotics following completion of IV therapy.
- 35 patients (26%) were non-routinely admitted to the intensive care unit (ICU).
- Forty patients (30%) of IDU population, compared to non-IDU patients (figure 4)

IE is a serious condition with almost a third of patients requiring ICU admission in our study. A large proportion of patients completed their treatment as inpatients. IDUs were over-represented in our study and were more likely to require cardiac surgery and treatment for more than one episode of IE. Mortality rates were also higher in this population group.

**References**