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2016-2018 Retrospective Chart Review: Patients with Substance Use Disorder and Endocarditis

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### 2016-2018 Retrospective Chart Review: Patients with Substance Use Disorder and Endocarditis

Amartina Dugan, BSN, RN, CMSRN, Diane (Helga) Duncan, BSN, RN, Sarah King, RN, Tiara Benson, BSN, RN, CMSRN
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### Background

According to the Substance Abuse and Mental Health Services Administration (SAMHSA), an estimated 312,000 people in Oregon are diagnosed with Substance Use Disorder (SUD) (2016-2018). A list generated from the electronic medical record identified patients with ICD-10 codes for both substance use disorders and Infective Endocarditis (IE).

### Purpose

The primary purpose of this study is to perform a retrospective chart review, first to better understand the hospital care provided to SUD and IE patients at Providence St. Vincent Medical Center (PSVMC), a 523-bed tertiary care facility with a cardiac center of excellence, and then to identify improvement opportunities.

### Methods

This Institutional Review Board (IRB) approved study is a retrospective chart review of adult SUD patients with Infective Endocarditis (IE). Two studies from research hospitals located in Massachusetts and Oregon were male, 13 (45%) were female, and had a mean age of 34.4 ± 10.4 years. Seventeen (59%) patients were reported as homeless on admission. The average length of stay was 17.03 days ± 20.1 days with a minimum of 2 and a maximum of 93 days.

"IE is an infection caused by bacteria that enter the bloodstream and settle in the heart lining, a heart valve or blood vessel." (American Heart Association, 2019). Of the valves affected, 4 (14%) had the aortic valve affected, 18 (62%) had the tricuspid valve, 0 (0%) had the pulmonary valve, 3 (10%) mitral valve and 4 (14%) had more than one valve affected. Methicillin-Susceptible Staphylococcus Aureus was the predominant organism identified, accounting for 6 (35%) of patients. No Organisms 6 (21%), Streptococcus 2 (7%), Candida parapsilosis 2 (7%), Methicillin-resistant Staphylococcus Aureus 1 (3%), Enterococcus faecalis 1 (3%), Serratia marcescens 1 (3%). Of these patients, 15 (52%) received valve replacement and/or repair, and 7 (24%) had more than one surgery.

A total of 29 patients met inclusion criteria. Of those 29 patients, 16 (55%) were male, 13 (45%) were female, and had a mean age of 34.4 ± 10.4 years. Seventeen (59%) patients were reported as homeless on admission. The average length of stay was 17.03 days ± 20.1 days with a minimum of 2 and a maximum of 93 days.

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