

Buprenorphine Treatment of Opioid Dependence for Patients Hospitalized with Infective Endocarditis

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Introduction:

Infective endocarditis (IE) is a life-threatening infection involving the valves of the heart, with in-hospital mortality between 15-30%. 1,2 Treatment typically includes 4-6 weeks of antibiotics, often requiring surgical repair or replacement of damaged valves. 3-5 Intravenous Drug Use (IVDU) is a major risk factor for IE, leading to a 10-fold higher rate of death or re-operation between 3-6 months following an index operation for endocarditis. 5 In opioid dependent individuals, treatment with buprenorphine has been shown to reduce IVDU and improve engagement in treatment.

Research Question:

Early initiation of buprenorphine during hospitalization for IE improves patient satisfaction and adherence to treatment.

Methods:

Retrospective chart review of three opioid-dependent patients during 2015-16 who were started on sublingual buprenorphine during hospitalization for IE secondary to IVDU.

Case Discussion:

Case 1 - 33 year-old opioid-dependent female with intravenous heroin and cocaine abuse, 2 previous episodes of IE, and valve replacement/repair is hospitalized for recurrent IE. SL buprenorphine was started during her hospitalization.

Case 2 - 33 year-old female with intravenous heroin and cocaine abuse is hospitalized for IE and started on SL buprenorphine while receiving antibiotics.

Case 3 - 30 year-old opioid-dependent male with prior IE from intravenous heroin use is re-hospitalized for IE and undergoes valve replacement. SL buprenorphine was started during hospitalization.

Duration of hospitalization ranged from 45-57 days. All patients completed 6-week antibiotic courses, and were successfully linked to ongoing addiction treatment. The buprenorphine and addiction support were managed by the toxicology consultation service during the hospitalization.

Discussion:

Previous studies of IVDU associated endocarditis have shown poor outcomes. In our experience, rapid buprenorphine initiation during hospitalization has enabled patients to tolerate prolonged hospitalization without leaving AMA. Such prolonged hospitalization also represents an opportunity to engage the patient in other meaningful aspects of recovery such as peer counseling and 12-step programs. Although further research is needed, these findings are encouraging. This represents an opportunity for medical toxicology consult services to expand their role in the management of acute withdrawal and complications of addiction in hospitalized patients.