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Title: Linking opioid use disorder treatment from hospital to community

Running head: Opioid use disorder treatment in hospital

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We read with interest Jo and colleagues' study of hospitalized patients with injection drug use-associated infective endocarditis and osteomyelitis who received methadone or buprenorphine.[1] These invasive infections are increasingly common[2–6] and in-hospital initiation of medications for opioid use disorder (MOUD) is both a crucial component of secondary prevention[7–12] and the standard of care for treating opioid use disorder.[13–17] While the manuscript refers to "initiation of MOUD" having limited effect, the investigators did not actually assess the effect of in-hospital initiation of buprenorphine or methadone maintenance treatment for opioid use disorder; they identified patients receiving either medication for any indication, including for opioid withdrawal.[1] We worry that soft-pedaling this distinction may mislead patients, clinicians, and policymakers into thinking MOUD treatment has relatively little impact in the hospital setting.

Jo and colleagues reported on 1407 patients with opioid use disorder (OUD) hospitalized with endocarditis or osteomyelitis who did not have an active MOUD prescription at the time of admission.[1] They described that "269 (19.1%) patients were initiated on MOUD during their hospitalization," and they defined "initiation on MOUD" as receipt of any dose of methadone or buprenorphine while hospitalized. This definition of MOUD, though, does not account for whether hospital providers titrated these medications to therapeutic doses or intended them as maintenance treatment.[18] We do not think that a few doses of methadone for withdrawal, for example, should qualify as "initiating MOUD" treatment.[15] Unfortunately dosages of methadone and buprenorphine were not reported in the study; these might have been used as a proxy for providers' intentions to continue these medications long-term. Table 2 shows only 44 patients (3.1% of the total sample and 16.4% of those who received any dose of MOUD) were continued on MOUD at discharge,

indicating that most patients only received these medications short-term, likely to relieve symptoms of opioid withdrawal.[1] As the authors note, a randomized controlled trial has shown continuation of MOUD after in-hospital initiation and discharge is much more effective at engaging patients in treatment compared to simply outpatient referral after withdrawal management.[19] It is unclear why withdrawal management in-hospital would be expected to affect 30 day re-hospitalization rates beyond reducing patient self-discharges.

Further, infections such as endocarditis and osteomyelitis vary greatly in severity, as does opioid use disorder and opioid withdrawal. Provision of methadone or buprenorphine during hospital could be associated with any of these factors, which could introduce confounding into this study. It is plausible, for example, that patients given opioid agonists had a greater degree of opioid withdrawal and therefore a greater likelihood of self-discharge, or more severe infections and a greater risk of readmission.

Overall, while this is an important and under-researched topic, we do not interpret this study as assessing the effect of OUD treatment started in hospital. We would therefore challenge the use of the terms “initiation” and “MOUD” in the title and manuscript, and wish to highlight for readers limitations of this study’s design.

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