

# Integrating Treatment at the Intersection of Opioid Use Disorder and Infectious Disease Epidemics in Medical Settings: A Call for Action After a National Academies of Sciences, Engineering, and Medicine Workshop

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As a result of the opioid use disorder (OUD) epidemic (1), new epidemics of hepatitis C virus (HCV) and HIV infection have arisen and hospitalizations for bacteremia, endocarditis, skin and soft tissue infections, and osteomyelitis have increased (2–4). Optimal treatment of these conditions is often impeded by untreated OUD resulting in long hospital stays, frequent readmissions due to lack of adherence to antibiotic regimens or reinfection, substantial morbidity, and a heavy financial toll on the health care system. Medical settings that manage such infections offer a potential means of engaging people in treatment of OUD; however, few providers and hospitals treating such infections have the needed resources and capabilities (5). There is thus an urgent need to implement and scale up effective OUD treatment in health care settings to address the intersecting epidemics of OUD and its infectious disease (ID) consequences (6). The American College of Physicians (7), the Infectious Diseases Society of America (8), and the National Institutes of Health (9) have issued calls for action. Providers who treat the infectious complications of OUD, including ID physicians, hospitalists, emergency medicine physicians, intensivists, surgeons, obstetrician-gynecologists, pediatricians, nurses, advanced practice registered nurses, and physician assistants are at the forefront of these epidemics and are well-positioned to integrate OUD treatment in the context of ID management.

To address these intersecting epidemics, the U.S. Department of Health and Human Services (DHHS) requested that the National Academies of Sciences, Engineering, and Medicine convene a workshop, “Integrating Infectious Disease Considerations with Response to the Opioid Epidemic.” The workshop took place on 12 and 13 March 2018 in Washington, DC, and participants included ID physicians, hospitalists, primary care providers, nurses, health policy experts, epidemiologists, law enforcement personnel, and staff from the DHHS and the Centers for Disease Control and Prevention. Videos and slides of the presentations are available at [http://nationalacademies.org/hmd/Activities/PublicHealth/IntegratingInfectiousDiseaseConsiderationswithResponsetotheOpioidEpidemic/2018\\_MAR-12.aspx](http://nationalacademies.org/hmd/Activities/PublicHealth/IntegratingInfectiousDiseaseConsiderationswithResponsetotheOpioidEpidemic/2018_MAR-12.aspx).

The workshop identified parallels between the current opioid epidemic and the early days of the HIV epidemic. Care of HIV-infected patients benefited greatly from the development of a highly trained interdisciplinary workforce and expanded access to treatment

through the Ryan White Comprehensive AIDS Resources Emergency Act (Ryan White CARE Act) and other public health policies. Workshop participants agreed on the need for partnership across treatment settings and specialties, increased access to addiction care and funding, and improvement of addiction treatment expertise among providers who manage the infectious complications of OUD. On the basis of the workshop discussions, we agreed on 5 action steps.

*Action Step 1: Implement screening for OUD in all relevant health care settings.* All persons who are evaluated in medical settings for overdose, endocarditis, bacteremia, skin abscesses, vertebral osteomyelitis, HIV infection, and HCV infection should be screened for OUD. The Rapid Opioid Dependence Screen (created by S.A.S.) (10) takes less than 5 minutes to administer. Because ID specialists are likely to be consulted for anyone requiring long-term antibiotic therapy or patients with HIV and HCV infection, OUD screening should be a standard part of an ID consult assessment.

*Action Step 2: For patients with positive screening results, immediately prescribe effective medication for OUD and/or opioid withdrawal symptoms.* Opioid withdrawal and pain syndromes should be addressed with opioid agonist therapies to optimize ID treatment and relieve pain. Although complex pain syndromes may require initial management with short-acting full opioid agonists, treatment for OUD can begin as soon as possible during hospitalization. Three medications that are approved by the U.S. Food and Drug Administration (FDA) for treatment of OUD are effective at preventing relapse: methadone, buprenorphine, and extended-release naltrexone. Methadone and buprenorphine are opioid agonists that can be used for pain control and also to treat opioid withdrawal and prevent relapse. Extended-release naltrexone is a long-acting injectable opioid antagonist that can be used to prevent relapse. Hospital-based initiation of OUD medication may enable patients to be retained long enough for them to complete antibiotic treatment instead of leaving against medical advice due to opioid cravings or withdrawal symptoms. Hospitals may also prescribe naloxone rescue kits and refer patients to needle- and syringe-exchange programs.

*Action Step 3: Develop hospital-based protocols that facilitate OUD treatment initiation and linkage to community-based treatment upon discharge.* Most hospitals do not offer medication for OUD during hospital-

ization and rely on passive referrals to community-based addiction treatment programs, a strategy that is rarely effective. Hospital pharmacy committees should stock FDA-approved medications for OUD. Clinical protocols for integration of addiction treatment for hospitalized patients and technical assistance to support implementation can be developed. Hospitals should partner with community-based programs and skilled-nursing facilities to provide seamless transitions in care for people with OUD and serious infections. Protocols for pregnant women with OUD are needed, including those to reduce neonatal abstinence syndrome.

*Action Step 4: Hospitals, medical schools, physician assistant schools, nursing schools, and residency programs should increase training to identify and treat OUD.* All prescribers and other hospital personnel should receive training on Drug Addiction Treatment Act waivers (an authorization for clinicians to prescribe buprenorphine for treatment of OUD). Hospitals should ensure that buprenorphine prescribers are available for hospitalized patients. Buprenorphine waiver training is available through the Providers Clinical Support System (<https://pcssnow.org>), which is funded by the Substance Abuse and Mental Health Services Administration. Clinicians should also be trained in how to safely prescribe methadone and extended-release naltrexone to patients before hospital discharge. "Best practice" quality indicators should be developed to promote OUD screening and treatment of hospitalized patients.

*Action Step 5: Increase access to addiction care and funding to states to provide effective medications to treat OUD.* Although OUD affects people of every socioeconomic status, the majority of those who are hospitalized are treated through Medicaid. The most direct way to improve access to OUD treatment is to expand access to Medicaid and other insurance and require that insurers cover FDA-approved treatments for OUD without cumbersome prior-authorization barriers. Stopgap measures like the Ryan White CARE Act, which provides an additional safety net for underinsured persons with HIV, may be an appropriate model for supporting OUD treatment in the absence of insurance.

All health care providers have a role in combating the OUD epidemic and its ID consequences. Those who treat infectious complications of OUD are well-suited to screen for OUD and begin treatment with effective FDA-approved medications. Integrating our collective skills may make the difference between life and death for patients with OUD.

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