An Innovative Approach to Address Serious Consequences of Opioid Substance Use Disorder

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During 2014, patients were admitted more frequently with diagnoses of soft tissue abscesses, epidural abscesses, and endocarditis. Two common denominators, among many of these patients, were a history of self-administering opioids intravenously and now needing intravenous (IV) antibiotics for prolonged periods of time. This combination posed a challenge for health care providers who believed that it was not prudent or safe to discharge patients with a port or peripherally inserted catheter (PICC) line for IV access when the patient was known to abuse opioids intravenously. Thus, the patients with these dual diagnoses -serious infections requiring IV antibiotics and substance use disorder- were admitted to the hospital for administration of IV antibiotics for six to twelve weeks.

Two additional concerns arose. Many providers believed that it was important to control pain and to work with these patients, encouraging them to work toward sobriety. In many instances this was reasonable and opportune since some of the very ill and scared patients demonstrated greater motivation to seriously consider abstinence and sobriety. The providers consulted the Pain Management Clinical Nurse Specialists (CNS) to help control the patients' pain while minimizing opioids and then wean the opioids to discontinuation whenever possible.

Two cardiovascular surgeons who saw the patients with endocarditis invited a team to meet to address how to best work with the patients with endocarditis resulting from IV substance use (IVSU). The initial group included the cardiovascular surgeons, infectious disease (ID) physician, cardiology administrator, cardiology nurse administrator, behavioral health administrator, substance abuse counselor, pharmacist, social worker, case manager and pain management CNS. An addictionologist and community provider of buprenorphine were consulted.

Since patients were also being admitted for non-cardiac infections resulting from IVSU, the team expanded to coordinate with the medical center Code Outreach physicians. Code Outreach is the established process through which the medical center coordinated interdisciplinary care of patients who were frequently evaluated in the emergency department (ED) and/or admitted. Eventually, the Code Outreach team assumed primary oversight for interventions, patient care, and group activities.

The intervention and group is now known as the Code Outreach Special Team or "COST". It consists of the two Code Outreach physicians, a pharmacist, the substance abuse counsellors, pain management CNSs, case management, cardiac nurse coordinator and one social worker (MSW). This MSW follows all the patients who are admitted to receive long term IV antibiotics to treat infections resulting from IVSU. Each patient in this category is reviewed weekly by the COST. At the weekly meetings, the patients' condition, challenges, pain management, progress toward goals, discharge needs/plans as well as the barriers to achieving these are discussed. The plan of care is amended as needed. A template was developed for an individualized COST note to be created during the meeting and entered into the electronic medical record for the patient. This COST note is available to all professionals providing care and working with the patient.

Each of the patients is also individually followed at least weekly by the pain management CNS, substance abuse counsellors and MSW. The team, especially the MSW, works closely with methadone maintenance programs and providers of buprenorphine in the community to identify resources to connect with the patient prior to discharge. While hospitalized, the substance abuse counsellors, MSW and pain management CNS work with the patients to encourage and support sobriety. Recently, the team has located an Alcoholic Anonymous/Narcotics Anonymous group to conduct meetings for this group of patients while hospitalized.

The pain management CNS works with the patients to control their acute pain which generally requires some opioids as part of a multi-modal analgesic plan of care (MMA-APOC). As resolution of the acute infection resolves, the focus changes to weaning opioids and progressing to a non-opioid MMA-APOC. Patients are encouraged to learn non-pharmacologic ways to control pain including square breathing, relaxation, distraction, and exercise. The medical center Healing Arts Network are consulted for patients to learn tai chi and/or yoga and receive massage.

Future plans include:

- the MSW being dedicated full time to working with these patients
- securing a room for the AA/NA meetings
- identifying a physician to initiate prescription of buprenorphine for interested patients
- developing a care plan or care trajectory that provides for consistency with room for individual care
- educating all medical center staff about the COST, clinical note and care plan
- increase funding for Healing Arts Network to increase support of non-pharmacologic interventions and education
- increase interactions with community treatment and behavioral health providers and facilities
- increase interaction and expand work with families of patients followed by the COST
- collect and analyze data to determine effectiveness of COST activities
- obtain grant funding to improve and formalize the COST and increase resources

The dedication and work of the member of the Code Outreach Special Team is acknowledged.