Editor's Choice

Tools to Support Hospital-Based Addiction Care: Core Components, Values, and Activities of the Improving Addiction Care Team

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Hospitals are increasingly filled with people admitted for medical and surgical complications of substance use disorder (SUD). Hospitalization can be a reachable moment to engage and initiate SUD care. Yet most hospitals do not have systems in place to adequately address addiction, and most providers have little to no addiction training. There is widespread need for protocols and tools to implement hospital-based SUD care. We share best practices from our hospital-based Improving Addiction Care Team (IMPACT). We include a description of interprofessional roles (medical providers, social workers, peers with lived experience in recovery) and include detailed appendices of practical tools such as medication protocols (eg, buprenorphine induction), risk assessments (eg, outpatient parenteral antibiotic therapy) and treatment tools (eg, a patient safety care plan to manage patient and staff expectations surrounding risks for in hospital drug use). A case example illustrates how IMPACT works and how tools can be applied. We hope other hospitals can adapt and integrate these tools to support widespread implementation of hospital-based SUD care.

Key Words: addiction, alcohol use disorder, health care quality, hospitalization, opioid use disorder

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BACKGROUND

Hospitals are increasingly filled with people admitted for medical and surgical complications of substance use disorders (SUDs). This drives poor patient outcomes, high readmission rates, long lengths of stay, and rising healthcare costs (Ronan and Herzig, 2016). Yet hospitalization can also be a reachable moment to initiate and coordinate addiction care (Liebschutz et al., 2014; Velez et al., 2017; Wakeman et al., 2017; Englander et al., 2018a).

Unfortunately, most hospitals are not equipped to manage the medical and behavioral health needs of people with SUD (Fanucchi and Lofwall, 2016; Rosenthal et al., 2016; Englander et al., 2018a) and few models exist that integrate SUD care into hospital settings (Englander et al., 2017; Trowbridge et al., 2017; Nordeck et al., 2018). Models that do exist lack detailed descriptions of staff activities and most hospital staff are not trained to deliver SUD care. Thus, there remains widespread need for protocols and tools to implement and disseminate SUD best practices in hospital settings.

In 2015, we designed and implemented a multicomponent interprofessional SUD intervention for hospitalized adults called the Improving Addiction Care Team (IMPACT). Earlier studies describe the rationale, design, initial outcomes, and early lessons learned (Englander et al., 2017; Velez et al., 2017; Englander et al., 2018b).

This paper details the core components, values, and activities of IMPACT. We describe the unique roles of our medical providers, social workers, and peer recovery mentors, and describe how the team—which we believe is more than the sum of its parts—works together. We include appendices describing medication induction protocols, social work tools, and advocacy tools. Supplemental digital content includes a composite document of all appendices 1–15 (http://links.lww.com/JAM/A131). We aim to share our approach and support others seeking to implement improvements for hospitalized adults with SUD.

IMPACT OVERVIEW

IMPACT includes care from addiction medicine providers, social workers, and peer recovery mentors with lived experience in recovery. We summarize IMPACT activities by role in Figure 1.

Patients with known or suspected SUD (excluding people with tobacco use disorders alone) are referred to IMPACT from inpatient providers. IMPACT performs an initial comprehensive assessment; elicits patient-centered goals around the acute hospitalization and SUD; may initiate SUD treatment, including pharmacotherapy and behavioral

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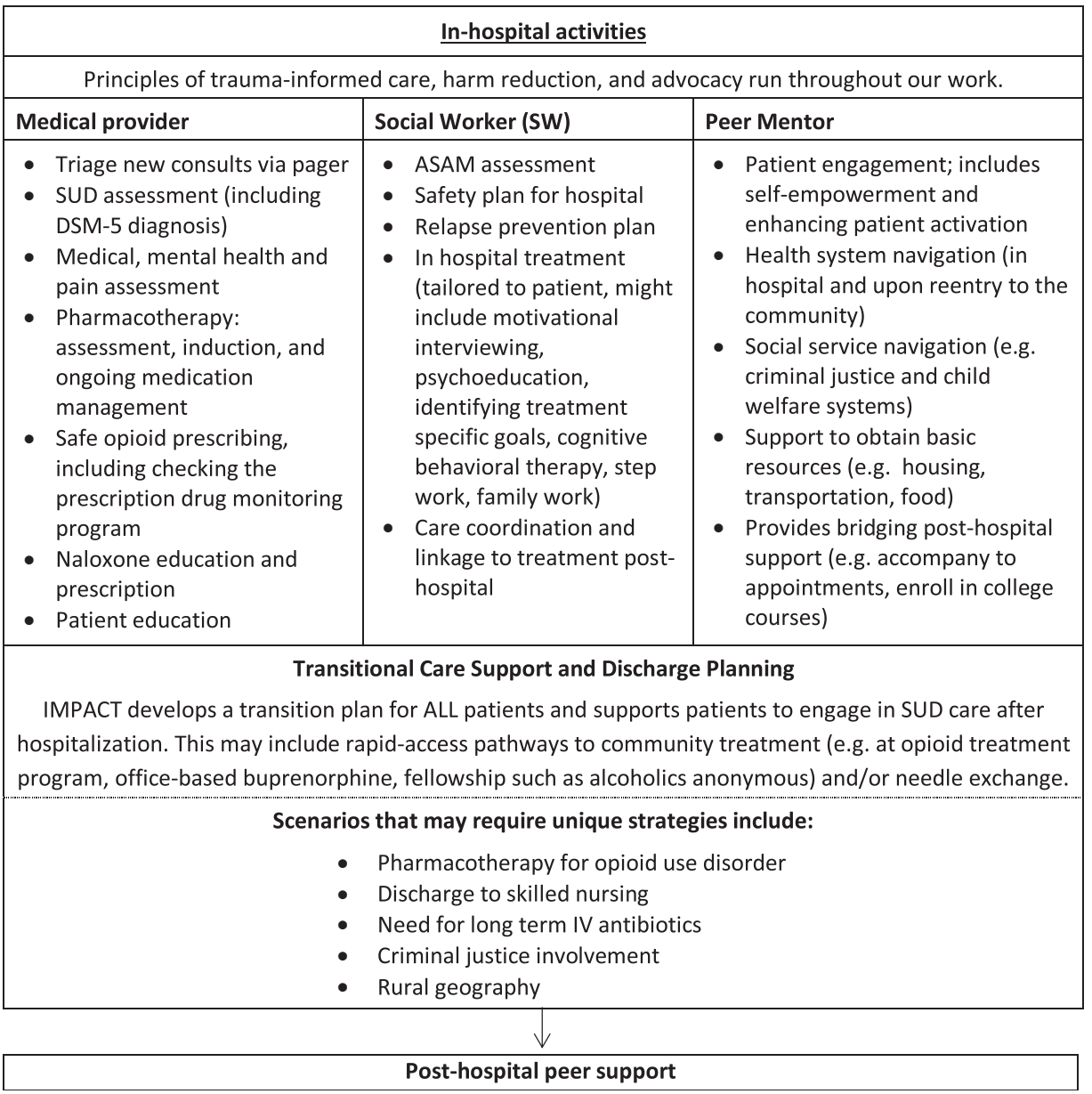

FIGURE 1. Summary of Improving Addiction Care Team (IMPACT) activities by role across the care continuum.

treatment; provides rapid-access pathways to post-hospital SUD care; and provides bridging peer support, in hospital and after discharge. IMPACT integrates and promotes trauma informed care (Elliott et al., 2005), harm reduction principles (Logan and Marlatt, 2010), and values of team-based care (Boon et al., 2004) across all aspects of our work.

During the first 3 years, IMPACT consulted on over 800 unique individuals who comprised 1025 hospitalizations. Sixty percent had an opioid use disorder, 45% had a stimulant use disorder, and 42% had an alcohol use disorder. Sixty percent of IMPACT patients had medication for SUD started in the hospital, and 75% had some planned linkage to SUD treatment, including formal SUD treatment (eg, methadone clinic) or informal (eg, alcoholics anonymous, fellowship) after hospitalization. When fully staffed, IMPACT serves adult medical and surgical inpatients at a 411-bed hospital. IMPACT includes 1.3 clinical physician full-time equivalent (FTE) time, 1.0 advance practice practitioner FTE, 2.0 social work FTE, and 1.5 peer mentor FTE. IMPACT medical providers document an average of 3.6 patient visits per hospitalization (range 1–33) and social workers document and average of 4.1 (range 1–33). Intervention intensity depends on patient needs, hospital length-of-stay, and IMPACT capacity. We summarize IMPACT

protocols and tools in the Table 1, and include them as appendices.

FINANCING IMPACT

Traditional billing revenue covers approximately 25% of staffing costs. Additional funding comes from a Medicaid case rate with one Medicaid coordinated care organization and from the hospital. IMPACT providers bill for addiction medicine consults using medical billing codes (initial consult 99221–99223; subsequent 99231–99233). Because some IMPACT providers also work as inpatient medicine attendings, providers bill using a unique billing department and add an electronic addiction medicine flag to each bill. IMPACT plans to designate providers that are boarded in addiction medicine using the Addiction Medicine Taxonomy labelled by the National Plan and Provider Enumeration System (NPPES), as this may increase billing revenue. Because social work services are bundled with the hospital DRG-based payment, IMPACT social workers do not bill. Peers have no mechanism to bill in our hospital. Earlier works describes the initial business case for IMPACT (Englander et al., 2017).

UNIQUE PROVIDER ROLES

Medical Providers

IMPACT medical providers include physicians, a nurse practitioner, and a physician assistant. Physicians are internists boarded in addiction medicine but without fellowship training in addiction medicine. Medical providers perform a comprehensive assessment focusing on patients' substance use, mental health, and recovery supports; their understanding of the acute hospitalization; and readiness to change. During the initial assessment, medical providers assess for active withdrawal, confirm (or refute) a diagnosis of SUD (American Psychiatric Association, 2013), identify risks (eg, history of overdose), and provide education about evidence-based SUD treatment. Providers discuss stigma and reframe addiction as a chronic brain disease, and underscore the link between a patients' presenting medical/surgical problems and their SUD. Medical providers often perform visits in collaboration with IMPACT social workers and peers.

Medical providers initiate pharmacotherapy (Appendices 1–3), guide appropriate pain management (Appendix 4),

TABLE 1. Summary of Improving Addiction Care Team (IMPACT) Tools With Brief Description

IMPACT Tool	Description
Medication management	
1. Medication protocols a. Opioid Use Disorder (OUD) b. Alcohol Use Disorder (AUD)	Overview of practice and considerations for prescribing medication for OUD (methadone, buprenorphine, naltrexone) and AUD in hospital settings. Includes references to medical literature.
2. Withdrawal management protocols a. Opioid withdrawal b. Alcohol withdrawal	Overview of management of acute opioid withdrawal and alcohol withdrawal.
3. Hospital Policy regarding Medication for Opioid Use Disorder	Hospital-wide policy clarifies the use of medication (methadone, buprenorphine/naloxone, buprenorphine, naltrexone) for opioid withdrawal management or opioid maintenance therapy in all patients with opioid use disorder who are hospitalized or seen in the emergency department.
4. Acute pain management in the setting of Opioid Use Disorder	Overview of our approach to acute pain in setting of OUD.
5. Perioperative buprenorphine management	OHSU policy for perioperative buprenorphine, which recommends continuation of buprenorphine.
Assessments	
6. Social work SUD assessment	Social work note template for SUD assessment that is grounded in the 6 dimensions of the American Society of Addiction Medicine (ASAM); includes case example.
7. Peripherally inserted central catheter (PICC) Community Safety assessment	Social work note template for PICC assessment that identifies risks, protective factors, patient preferences; includes case example.
8. Outpatient parenteral antibiotic therapy (OPAT) assessment	Framework for interdisciplinary case conference. Supports discharge decisions for patients with SUD needing long term intravenous antibiotics and aims to balance patient goals and risks, medical recommendations, and available treatment options. Includes case example.
Treatment tools	
9. Patient Safety Care Plan	Guideline that ward nurses and IMPACT SWs review with patients to proactively and transparently set behavioral expectations for patients and providers. Aims to set clear expectations; avoid and deescalate conflict; and identify ways in which hospital providers can support patients to meet their goals.
10. Relapse prevention plan	Guide for SW conversation with patients that supports understanding of triggers for substance use and patient-identified strategies to address.
11. Approach to harm reduction	Prompts for discussion of safe injection practice, information about needle exchange, and overview of naloxone practice.
Other useful documents	
12. Sample letter to judge or parole officer	Sample letter most often used when criminal justice system bars patient from accessing medication for opioid use disorder.
13. Medical provider note template	Note template that can be adapted to other electronic health record.
14. Examples of Medication PARQ documentation	Example documentation of Procedures, Alternatives, Risks and Questions (PARQ) for buprenorphine induction and naltrexone injection.
15. Buprenorphine fact sheet	Two-page fact sheet to provide ward nurses and others. Highlights basics of buprenorphine induction and administration including use of clinical opioid withdrawal scale, need for sublingual administration, and induction timeline.

All tools are included as supplemental digital content (http://links.lww.com/JAM/A131).

screen for unrecognized mental illness, recommend treatment for post-traumatic stress or other mental health conditions (Appendix 6), and introduce harm reduction strategies (Appendix 11). They play a key role in hospital staff education through modeling difficult conversations at the bedside; informal teaching (eg, supporting ward nurses in buprenorphine inductions) (Appendix 15); and providing formal trainings across our organization (Englander et al., 2018a). Medical providers often advocate for patients with other healthcare providers or in the criminal justice system (Appendix 12). We provide examples of medical provider documentation (Appendices 13 and 14).

Social Workers

IMPACT social workers (SWs) are licensed clinical social workers with experience in SUD treatment and community mental health. Their initial assessment is grounded in the 6 dimensions of the American Society of Addiction Medicine (ASAM) criteria (Mee-Lee, 2013). They tailor their work to individual patient needs, and may focus on crisis stabilization; motivational interviewing (Rollnick et al., 2008); brief treatment interventions utilizing behavioral therapies such as cognitive behavioral therapy, relapse prevention planning (Appendix 10), and harm reduction strategies (Appendix 11); and referrals to support needs post-hospital discharge (eg, SUD treatment, housing, primary care).

If providers anticipate a prolonged hospitalization or if a patient has had disruptive behaviors on prior hospitalizations, IMPACT SWs also develop a patient safety care plan (PSCP) in close collaboration with nurses, primary team physicians, and patients (Appendix 9). PSCPs aim to set clear expectations; avoid and deescalate conflict; and identify ways in which hospital providers can support patients to meet their goals. The idea is to proactively and transparently set behavioral expectations for both patients and providers.

For patients needing long-term intravenous antibiotics (IV) or a peripherally inserted central catheter (PICC), SWs complete a PICC Community Safety Assessment (Appendix 7) and may convene a care conference with infectious disease colleagues and other staff to determine treatment options and support timely, safe discharge. A shared framework for this conference (Appendix 8) aims to balance patient goals and risks, medical recommendations, and available treatment options.

Peer Mentors (Peers)

IMPACT peers are certified recovery mentors (Oregon Health Authority, 2018) with lived experience in recovery. Their work is grounded in principles of peer support (Substance Abuse Mental Health Services Administration, 2015) including the importance of connection, equally shared power, and an understanding and acceptance of different worldviews and choices. Unlike conventional therapeutic relationships, peer mentorship relies on the mutuality and reciprocity of two equals who share similar experiences.

IMPACT peer activities include patient engagement and social support. Examples of in-hospital activities include talking peer-to-peer, visits off the hospital unit, and acts that lend emotional support (for example, braiding a patient's hair). Peers often serve as a liaison or ''cultural broker'' between hospital providers and patients. A peer's role is not to persuade patients to accept treatment or change behavior. Instead, they can reflect on a patient's feelings around provider recommendations and provide support.

Peers also provide a vital link between SUD care and the broader community in which people are seeking to achieve and sustain a meaningful life (Gagne et al., 2012). Peers support patients to navigate systems (eg, criminal justice and child welfare systems), attend follow-up appointments, and help obtain basic resources (eg, housing).

Peers spend approximately 60% of their time providing direct patient contact (in hospital or community) and 40% in IMPACT meetings, supervision, or completing administrative tasks. Future studies describe work of IMPACT peers and provide guidance on how to implement peers in hospital settings.

CARE COORDINATION

IMPACT huddles for 30 minutes daily to ''run the list,'' communicate key information, formulate interprofessional care plans, and divide work. We hold weekly operations meetings to address system-level challenges and support continuous quality improvement and program development.

TREATMENT PATHWAYS

IMPACT includes post-hospital SUD care pathways and community partnerships. Initially, IMPACT met quarterly with community SUD treatment partners, skilled nursing and criminal justice representatives, and hospital leadership to improve multiorganizational collaboration.

CASE EXAMPLE

We use a case example to highlight how IMPACT roles work together and with hospital staff and community partners to provide SUD care. D, a woman in her 30s with a history of post-traumatic stress disorder, anxiety, and IV heroin use, was admitted to the hospitalist service with septic arthritis of the knee. IMPACT was consulted the day after admission. Using DSM 5 criteria, the IMPACT physician diagnosed D with a severe opioid use disorder. After discussing medication options to treat opioid use disorder, D asked to begin buprenorphine-naloxone. She had acute pain and was currently on high dose opioids, and she would require knee surgery. Thus, IMPACT coordinated with the anesthesia pain service who placed a nerve block, and D was subsequently induced onto buprenorphine-naloxone (Appendix 1). The IMPACT physician then worked with the surgical team to ensure that buprenorphine-naloxone was continued perioperatively (Appendix 5).

D also engaged with the IMPACT Peer and Social worker. IMPACT SW conducted an ASAM assessment and began treatment focusing on mindfulness and relapse prevention. D called on these techniques frequently during her hospitalization, as her hospital stay extended due to infectious complications requiring further surgery. SW conducted a PICC Community Safety Assessment (Appendix 7) and identified a clinic to prescribe buprenorphine-naloxone post-discharge. The Peer provided additional emotional support

and empowerment. The peer helped D work with her providers to improve their communication with her (including writing a daily list of her medications and description of the treatment plan), which alleviated her anxiety. The Peer also engaged D's boyfriend around his substance use and treatment needs.

Once stable for discharge, IMPACT, the primary physician team, the infectious diseases consult service, and the outpatient infusion team met to review the risks/benefits of discharge home to complete antibiotics (Appendix 8). As a result, D discharged home to complete her last 4 weeks of IV antibiotics. She was discharged with a bridging prescription for buprenorphine-naloxone until her intake appointment with outpatient treatment in rural Oregon.

CONCLUSIONS

Hospitalization can provide a ''reachable moment'' to powerfully intervene in the cycle of addiction. We hope that other hospital systems can use the practical tools and protocols provided here to create their own interventions, adapting them to their local strengths and contexts, and thereby continuing to improve the care of patients with SUD throughout the United States.

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