Thrivee Virtual Medication Assisted Treatment

Supporting Evidence

VIRTUAL MEDICATION ASSISTED TREATMENT

OVERVIEW

This document highlights supporting evidence to Thrivee's use of technology to enable virtual delivery of Medication Assisted Treatment to treat Opioid Use Disorder. Thrivee combines virtual visits for medication maintenance with virtual group therapy using face-to-face video between patients and providers for a care experience that boosts access to care, increases retention and engagement, and is convenient and private.

Supporting evidence highlights how Medication Assisted Treatment is the best care for addiction, that Virtual Medication Assisted Treatment improves access to care and increases retention and engagement, and how future regulations may better enable Thrivee's delivery model. Medication Assisted treatment with buprenorphine is the current standard to treat Opioid Use Disorder in terms of clinical guidelines, patient preference, outcomes, quality, and cost. Virtual Medication Assisted treatment is optimizing the delivery model for telemedicine and has been shown in early studies to increase access to treatment with comparable outcomes. Current regulations require an initial in person medical evaluation prior to Virtual Medication Assisted Treatment yet may change with pending federal legislation as of June 2018.

MEDICATION ASSISTED TREATMENT WITH BUPRENORPHINE

Medication Assisted Treatment (MAT) combines psychotherapy and pharmacotherapy to treat Opioid Use Disorder (OUD). The main pharmacotherapy agents for treating OUD are buprenorphine and methadone as part of American Society of Addiction Medicine (ASAM) guidelines.[1] Both buprenorphine and methadone are considered essential medicines by the World Health Organization.[2] Buprenorphine is considered equally effective to methadone according to a 2016 meta-analysis of 27 randomized controlled trials.[3] Studies of patient preference have indicated more positive attitudes toward buprenorphine because of ease of access, convenience[4], and reduced stigma compared to methadone.[5] Combined buprenorphine and naloxone has demonstrated adherence, efficacy, safety, and tolerability in patients with prescription OUD.[6] In addition, buprenorphine reduces the risk of adverse events compared to methadone.[7] A 5-year study (2008-2013) of over 8,000 Vermont Medicaid beneficiaries indicated cost savings with MAT (combining patients prescribed buprenorphine and methadone) in terms of reduced admissions and emergency department visits. The findings suggest, that even for Medicaid enrollees, MAT improves outcomes and reduces spending compared to usual care of counseling and detoxification.[8]

VIRTUAL MEDICATION ASSISTED TREATMENT

Early studies of telemedicine (ie virtual) Medication Assisted Treatment (vMAT) have shown promising results for improved treatment outcomes and expanding access. A study of 3,733 patients enrolled in

MAT conducted in Ontario Canada across 58 clinics from 2011-2012 identified increased year one retention via telemedicine (50%) versus in person (39%).[9] An update by the same research group studied access using a 2008 to 2014 retrospective cohort of 9,077 patients provincially insured in Ontario Canada receiving vMAT. The study identified 55% of patients enrolled in vMAT had a concurrent mental health disorder and more frequent use of vMAT by patients in rural regions of the province.[10] The authors findings reinforced previous studies that suggest telemedicine addressed geographic barriers to access to patients with OUD and behavioral health concerns and is "effective to patient, provider, program, and society as a whole."[10] [11] A retrospective review of 100 patients enrolled in MAT from 2013 to 2014 identified no significant difference in terms of treatment retention, abstinence, and additional substance use.[12] Additional benefits of vMAT include privacy and anonymity thus avoiding stigmatization of addiction and psychiatric treatment.[13]

MEDICATION ASSISTED TREATMENT REGULATIONS

The largest barrier to telemedicine (i.e. virtual) medication assisted treatment (vMAT) remains provisions of the Ryan Haight Act (2008) amending the Drug Addiction and Treatment Act (DATA, 2000)[14] as part of the Controlled Substances Act (21 CFR). Named after a teenager who died of a drug overdose after obtaining Vicodin from an online pharmacy without evaluation by a provider, the legislation restricted the dispensing of controlled substances using the internet. As a result, providers are required to conduct at least one face-to-face encounter for an initial medical evaluation and are required to obtain a federal waiver to prescribe addiction medication (buprenorphine) . The Substance Use Disorder Prevention that Promotes Opioid Recovery and Treatment for Patients and Communities (SUPPORT) Act became law in October 2018. The SUPPORT law included US Dept of Health and Human Services (HHS) funding and grants, provisions increasing access to care for Medicaid enrollees and flexibility for state Medicaid agencies, and greater DATA treatment capacity for providers.[15]Other proposed legislative efforts seek to change policy to increase patient access to vMAT via expanding telehealth delivery options such as waiving current restrictions for face to face encounters thus enabling telehealth (i.e. virtual care) and enhancing access with new funding mechanisms for patients.[16] [17] [18][19] [20] Telehealth parity laws enable vMAT requiring that health insurers cover and pay for services delivered via telehealth the same as if delivered in-person. As of June 2018, telehealth parity laws have been enacted in 35 states and the District of Columbia.[21]

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[1] Kampman K, Jarvis M. American Society of Addiction Medicine (ASAM) National Practice Guideline for the Use of Medications in the Treatment of Addiction Involving Opioid Use. J Addict Med. 2015 Sep-Oct;9(5):358-67.

[2] Herget G. Methadone and buprenorphine added to the WHO list of essential medicines. HIV AIDS Policy Law Rev. 2005 Dec;10(3):23-4.

[3] Gowing L, Ali R, White JM, Mbewe D. Buprenorphine for managing opioid withdrawal. Cochrane Database of Systematic Reviews 2017, Issue 2. Art. No.: CD002025.

[4] Korthuis PT, Gregg J, Rogers WE, McCarty D, Nicolaidis C, Boverman J. Patients' Reasons for Choosing Office-based Buprenorphine: Preference for Patient-Centered Care. Journal of addiction medicine. 2010;4(4):204-210.

[5] Yarborough BJH, Stumbo SP, McCarty D, Mertens J, Weisner C, Green CA. Methadone, Buprenorphine and Preferences for Opioid Agonist Treatment: A Qualitative Analysis. Drug and alcohol dependence. 2016;160:112-118.
[6] Connery HS. Medication-assisted treatment of opioid use disorder: review of the evidence and future directions. Harv Rev Psychiatry. 2015 Mar-Apr;23(2):63-75.
[7] Thomas CP, Fullerton CA, Kim M, Montejano L, Lyman DR, Dougherty RH, Daniels AS, Ghose SS, Delphin-Rittmon ME. Medication-assisted treatment with buprenorphine: assessing the evidence. Psychiatr Serv. 2014 Feb 1;65(2):158-70.
[8] Mohlman MK, Tanzman B, Finison K, Pinette M, Jones C. Impact of Medication-Assisted Treatment for Opioid Addiction on Medicaid Expenditures and Health Services Utilization Rates in Vermont. J Subst Abuse Treat. 2016 Aug;67:9-14.
[9] Eibl JK, Gauthier G, Pellegrini D, Daiter J, Varenbut M, Hogenbirk JC, Marsh DC. The effectiveness of telemedicine-delivered opioid agonist therapy in a supervised clinical setting. Drug Alcohol Depend. 2017 Jul 1;176:133-138.
[10] LaBelle B, Franklyn AM, Pkh Nguyen V, Anderson KE, Eibl JK, Marsh DC. Characterizing the Use of Telepsychiatry for Patients with Opioid Use Disorder and Cooccurring Mental Health Disorders in Ontario, Canada. Int J Telemed Appl. 2018 Feb 11;2018:7937610.
[11] Hilty DM, Ferrer DC, Parish MB, Johnston B, Callahan EJ, Yellowlees PM. The Effectiveness of Telemental Health: A 2013 Review. Telemedicine Journal and e-Health. 2013;19(6):444-454. doi:10.1089/tmj.2013.0075.
[12] Zheng W, Nickasch M, Lander L, Wen S, Xiao M, Marshalek P, Dix E, Sullivan C. Treatment Outcome Comparison Between Telepsychiatry and Face-to-face Buprenorphine Medication-assisted Treatment for Opioid Use Disorder: A 2-Year Retrospective Data Analysis. J Addict Med. 2017 Mar/Apr;11(2):138-144.
[13] Mahmoud H, Vogt E. Telepsychiatry: an Innovative Approach to Addressing the Opioid Crisis. J Behav Health Serv Res. 2018 Mar 29.
[14] United States Congress. H.R. 6353 - Ryan Haight Online Pharmacy Consumer Protection Act of 2008. Available at: https://www.congress.gov/bill/110th-congress/house-bill/6353/text. Accessed May 31, 2018.
[15] United States Congress. H.R. 6 – SUPPORT for Patients and Communities Act of 2018. Available at: https://www.congress.gov/bill/115th-congress/house-bill/6. Accessed January 15, 2019.
[16] United States Congress S. 2456 S.2456 - CARA 2.0 Act of 2018. Available at: https://www.congress.gov/bill/115th-congress/senate-bill/2456. Accessed May 31, 2018.
[17] United States Congress. S. 2680 - Opioid Crisis Response Act of 2018. Available at: https://www.congress.gov/bill/115th-congress/senate-bill/2680. Accessed May 31, 2018.
[18] United States Senate Committee on Finance. Bipartisan Medicare, Medicaid & Human Services Bills to Address Opioid Epidemic. Available at: https://www.finance.senate.gov/imo/media/doc/5.23.18%20Bipartisan%20Medicare,%20Medicaid%20&%20Human%20Services%20Bills%20to%20Address%20Opioid%20Epidemic.pdf. Accessed May 31, 2018.
[19] United States Congress. H.R.5603 - Access to Telehealth Services for Opioid Use Disorders Act. Available at: https://www.congress.gov/bill/115th-congress/house-bill/5603/actions. Accessed May 31, 2018.
[20] United States Congress. H.R.5483 - Special Registration for Telemedicine Clarification Act of 2018. Available at: https://www.congress.gov/bill/115th-congress/house-bill/5483. Accessed May 31, 2018.
[21] American Telemedicine Association. State Policy Resource Center. Available at: http://www.americantelemed.org/policy-page/state-policy-resource-center. Accessed May 31, 2018.