

Prevention of Opioid Use Disorders for Veterans with Chronic non Cancer Pain and PTSD

Psychological trauma is a major predictor of opioid dependence, with the risk of intravenous drug use being increased nine-fold in individuals with a history of early trauma [1] and a co-morbid rate of 33% in adults with post traumatic stress disorder (PTSD) [2]. The comorbidity of PTSD and opioid dependence complicates treatment of both conditions. Thus, most clinical trials for the treatment of opioid dependence have excluded participants with co-occurring psychiatric disorders, including PTSD. The few treatment studies in patients with PTSD and opioid dependence have reported poor outcomes for both conditions. PTSD patients report a reduction in intrusive and hyperarousal symptoms of PTSD with acute opioid use [3] and studies in children with burn injuries have shown that acute morphine administration protects against the development of PTSD in children who are burn victims [4-6]. Therefore, patients with PTSD have high risk of developing opioid addiction.

Prescription opioid addiction is a broad spectrum disease. It starts with opioid use for pain management and progresses to mild problems with misuse e.g. taking more than the recommended dose without consulting with the physician. If prevention measures would not be implemented early, the disease progresses to a full blown addiction i.e. opioid abuse or dependence. The reward reinforcing properties (euphoric effect) of opioids is the key for this disease. Some opioid users may find the euphoric effect of their prescribed medications effective in reducing their psychiatric comorbidity like PTSD. Therefore, they cross the line from using their opioids as prescribed to misusing them for self-medication especially during periods of high stress. Many combat veterans are started on opioids during their military service due to combat inflicted physical injuries. They are also diagnosed with PTSD due to their combat experience. When they get discharged from the service, they usually have difficulty adjusting to the civilian life due to their PTSD. At this point they start misusing their prescribed opioids to self-medicate. They usually have difficulties coming off their prescribed opioids. They may get it from friends, on the internet or other illegal sources. This may affect their relationships with their families and their abilities to function.

Long term opioid treatment for veterans with non-cancer pain did not prove any advantage. Seal et al. [7] concluded that among US veterans of Iraq and Afghanistan, mental health diagnoses, especially PTSD, were associated with an increased risk of receiving opioids for pain, high-risk opioid use, and adverse clinical outcomes. In this study, a total of 15,676 veterans were prescribed opioids within 1 year of their initial pain diagnosis. Compared with 6.5% of veterans without mental health disorders, 17.8% (adjusted relative risk [RR], 2.58; 95% CI, 2.49-2.67) of veterans with PTSD and 11.7% (adjusted RR, 1.74; 95% CI, 1.67-1.82) with other mental health diagnoses but without PTSD were significantly more likely to receive opioids for pain diagnoses. Of those who were prescribed pain medication, veterans with PTSD were more likely than those without mental health disorders to receive higher-dose opioids (22.7% vs 15.9%,



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adjusted RR, 1.42; 95% CI, 1.31-1.54), receive 2 or more opioids concurrently (19.8% vs 10.7%, adjusted RR, 1.87; 95% CI, 1.70-2.06), receive sedative hypnotics concurrently (40.7% vs 7.6%, adjusted RR, 5.46; 95% CI, 4.91-6.07), or obtain early opioid refills (33.8% vs 20.4%; adjusted RR, 1.64; 95% CI, 1.53-1.75). Receiving prescription opioids (vs not) was associated with an increased risk of adverse clinical outcomes for all veterans (9.5% vs 4.1%; RR, 2.33; 95% CI, 2.20-2.46), which was most pronounced in veterans with PTSD. Veterans with comorbid PTSD and Pain who are on prescription opioids are at increased risk for drug overdose especially during periods of high stress. They feel trapped and their primary care physicians (PCP) are usually in a dilemma. If the PCP tries to taper them off, veterans start to complain of exacerbation of the pain and they ask for opioid dose increase. Those veterans may go through opioid withdrawal as they try to come off their prescribed opioids which may potentiate their physical pain.

There is a thin line between being on prescribed opioid for pain and crossing the line to addiction if early intervention would be implemented for veterans with chronic non cancer pain and PTSD. They need help in getting off their prescribed opioids in a safe and comfortable way. Buprenorphine is a mu opioid partial agonist [8] with proven efficacy for the treatment of opioid abuse and dependence. It has never been tested in military personnel who are on prescribed opiates for chronic non cancer pain and transitioning from active duties to civilian live. Buprenorphine can be used as a transitioning medication for young veterans who are diagnosed with PTSD and misusing their prescribed opioids for self-medication. It can prevent the progression of their opioid misuse to a full blown addiction. It can help them to function and reintegrate well to civilian life. Buprenorphine can be prescribed in office based setting either in primary care or mental health which eliminates any stigma and increases access to care among those veterans. Buprenorphine has less euphoric effect because it is a partial mu receptor agonist. Therefore, it has lower risk for addiction. It is a long acting medication which reduces the risk for inter-dose withdrawal. It has a strong affinity and slow dissociation from the mu receptor. These 2 properties make the taper of buprenorphine much easier than other opioids. Most other opioids produce opioid induced hyperalgesia (OIH) syndrome [9] that means decreasing the sensitivity for pain over long term use. Therefore, they are not the best agents for management of long term non cancer pain and actually discontinuation is usually indicated

to reduce pain in these circumstances. A review article [9] reported that sublingual buprenorphine appears to be a simple option for the treatment of OIH. Offering a comfortable way to wean those patients off the prescribed opioids, along with providing non-opioid options for management of chronic non cancer pain and psychotherapeutic interventions for PTSD, may reduce the risk of opioid addiction in this population.

References

1. Anda RF, Felitti VJ, Walker J, Whitfield C, Bremner JD, et al. (2006) The enduring effects childhood abuse and related experiences in childhood: A convergence of evidence from neurobiology and epidemiology. *Eur Arch Psychiatr Clin Neurosci* 256: 174-186.
2. Mills KL, Teesson M, Ross J, Darke S(2007) The impact of post-traumatic stress disorder on treatment outcomes for heroin dependence. *Addiction* 102: 447-54.
3. Bremner JD, Southwick SM, Darnell A, Charney DS(1996) Chronic PTSD in vietnam combat veterans: Course of illness and substance abuse. *Am J Psychiatry* 153: 369-375.
4. Stoddard FJ, Ronfeldt H, Kagan J, Drake JE, Snidman N, et al. (2006) Young burned children: The course of acute stress and physiological and behavioral responses. *Am J Psychiatry* 163: 1084-1090.
5. Saxe G, Stoddard F, Courtney D, Cunningham K, Chawla N, et al. (2001) Relationship between acute morphine and the course of PTSD in children with burns. *J Am Acad Child Adolesc Psychiatry* 40: 915-921.
6. Saxe GN, Stoddard F, Hall E, Chawla N, Lopez C, et al. (2005) Pathways to PTSD, part I: Children with burns. *Am J Psychiatry* 162: 1299-1304.
7. Seal KH, Shi Y, Cohen G, Cohen BE, Maguen S, et al. (2012) Association of mental health disorders with prescription opioids and high-risk opioid use in US veterans of Iraq and Afghanistan. *JAMA* 307: 940-947.
8. Cowan A (2007) Buprenorphine: The basic pharmacology revisited. *J Addict Med* 1: 68-72.
9. Silverman SM (2009) Opioid induced hyperalgesia: clinical implications for the pain practitioner. *Pain Physician* 12: 679-684.