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Title: Take home naloxone has been considered a 'life-saving' medication in opiate overdose

Name of Author	Kan Nika He
Name of University	RMIT University
Country of Study	Australia
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Assessment Task 2: Essay on Selected Topic

Take home naloxone has been considered a 'life-saving' medication in opiate overdose

Kan Nika He
Dual Diagnosis
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Kan Nika He
S3595771

Australia has been contributed to the increase with an average of one point five deaths daily by unintentional of opioid overdose (Marianne & Suzanne, 2017). According to Marianne and Suzanne (2017) study, the healthcare professional staff play significant roles in identifying the risk of opioid toxicity and to provide life saving drug such as naloxone in reversing opioid overdose. Naloxone also known as the production of common brand name Narcan. This antidote medication is rapidly reversible for the exceeding of opioid in the body; and it works in the brain by attacking and blocking the effect of opioid receptors (Dean, 2018, July 16). Naloxone also used to treat respiratory depression after an anaesthetic procedure or during pain management (Dean, 2018, July 16).

In addition, the aim of this essay is to exposes about the mechanism of naloxone in reversing opioid overdose and some challenges of naloxone to take home for those with opiate use disorders. In regarding to naloxone studies, the essay also demonstrates wether take home naloxone is effective or not with the evidence of 'take home naloxone programs'. Similarly, the essay highlights the prescription of opioid overdoses has resulted in death and the role for those who use prescription opioid when take home naloxone.

Opioid Overdose and the Challenges of Take Home Naloxone

According to World Health Organisation (2018), opioids are derived from the substances of opium poppy, is characterised as a strong desire by the opioid user; however, it is also used as an analgesia to treat for pain management and other chronic pain. The opioids include heroin, morphine, tramadol, methadone and oxycodone (World Health Organisation, 2018). Despite to the high dose, opioid can lead to the affect of the central nervous system that

can potentially regulates the person breathing, which causing respiratory depression and fatal occur (Li, Armenian, Mason & Grock, 2018). Meanwhile, there are three common signs of opioid overdose include pinpoint pupils, respiratory depression and unconsciousness; the symptoms may consist of slow heart beat, extreme sleepiness and inability to respond at the surrounding (Li, Armenian, Mason & Grock, 2018). Hence, the risk factors of opioid overdoses are due to substance use disorders history; prescribed in a high dosage with over equivalent daily; aging and multiple prescriptions such as benzodiazepines; lower socioeconomic status and mental health issues, as stated by World Health Organisation (2018).

In relation to World Health Organisation (2018), naloxone is one of the effective strategy in reducing overdose deaths; nonetheless, there are some challenging in how and who this medication will be administered when take home naloxone. Even though naloxone is a life saving drug, yet it is still remains in questionable to the general universal of medical community (Hurley, 2011a). Some researcher expose that there will be an increase the use of more opioid dose rapidly, since the antidote is available to the public and easy to purchase if thing happens. Thus, the bystanders may be less likely to call for emergency assistance because naloxone is openly available over the counter with or without the medication script (Lenton, Dietze & Jauncey, 2016).

Mechanism of Naloxone

Regarding to the studies, naloxone is an opioid antagonist with a pure and high affinity of mu-opioid receptor, that able for the reversal effects of opioids (Macdonald & Lambert,

2016). It works in the brain by knocked off opioids in the opiate receptors. From this point of view, it is essential to administer naloxone to an overdosing person straight away because a few minutes of brain damage cause by opioid, resulting of inadequate oxygen to the patient's brain (Dolinak, 2017). Generally, this opioid antagonist work within around five minutes, and after thirty minutes it will start to wear off and mostly up to around ninety minutes (Dolinak, 2017). From this process, the body has managed the opioids overdosing person and help breathing back to normal (Dolinak, 2017).

In according to the naloxone reports, it is also available with Suboxone product, which is the combination with opioid medication of buprenorphine; as it used for the treatment of addiction and opioid dependence (Sinclair, 2013). In other case, naloxone does not work on non opioid medication such as cocaine, benzodiazepines or methamphetamine; as it only work effectively on opioid receptors in the body. Importantly, it is dangerous if more opioid taken after naloxone because naloxone has a short half life, while other opioid can stay much longer in the body; which mean that it could cause a second overdose. So, due to the short duration of naloxone, it should be closely monitor for alertness and respiration control of the patient (Walsh et al., 2016).

Side Effect of Naloxone

Naloxone has very little side effect and event when injected into a person who is not using opioid medications, the effects would be not noticeable at all (Bratberg & Jackson, 2016). However, naloxone may cause some of the side effects such as body aches, dizziness, restlessness, nervousness, nausea, chills, slight fever and stomach pain (He, Jiang & Li, 2016).

Particularly, there are some of the rare side effects including irregular heartbeat, seizures, hallucinations and loss of consciousness (Cheng, 2013). Nonetheless, naloxone is one of the most extremely safe medication, when it comes to noticeable the affect of opioid in the human systems (Bratberg & Jackson, 2016). Even though, this reversible medication can sometimes cause withdrawal symptoms which may be discomfort the person, but it is not as life threatening as the opioid overdose, stated by Bratberg and Jackson (2016).

Goal, Used and Administration of Naloxone

The goal of reversible opioid overdose is to increase the respiratory drive, in order to enable for adequate spontaneous oxygenation and respiration (Patanwala et al., 2012). Additionally, naloxone is also used in reversing the negative impact of opioid overdose after surgery, because during operation process there is a small dose causing minor opioid depression. Besides that, this medication usually administered through intravenous infusion (IV), subcutaneously (SC), intramuscular (IM), or intranasal route (IN) (Mathew & Daphne, 2018). Thus, naloxone should be administered slowly to individuals who are in chronic opioid users or opioid dependent in order to avoid second overdose and other serious potential reaction to the person (Mathew & Daphne, 2018).

The effectiveness of taking home naloxone

The Advisory Council on Misuse of Drugs, has implemented for the recommendation of take home naloxone in the UK, as this medication has been recognised with the good effect of reducing the number of overdose mortalities (Iversen, Stevens & Perera, 2016). Likewise, in Sydney, a take home naloxone supply has been indicated with thirty successful overdose

reversal in a trail of eighty-three participants (Marianne & Suzanne, 2017). There is therefore, the international studies have demonstrated that take home naloxone is feasible and safe strategy in reducing overdose deaths and opioid harm reduction (Marianne & Suzanne, 2017).

Take home Naloxone and Education Program

In Australia, take home naloxone programs that initiating with the ACT program has been improved to other jurisdictions such as New South Wales, South Australia, West Australia, Queensland and Victoria for national approach to naloxone provision and training (Wiggins, 2012). Furthermore, therapeutic Goods Administration (TGA) has been made to reschedule naloxone to schedule 3 (pharmacist only medication) from schedule 4 (prescription only medication) (Nielsen, Van & Marie, 2016. These rescheduling would escalate the access of naloxone in the community and society; however, there are two conditions that emerged with the change of schedule 3 purpose: the responsibility for overdose management training and the cost of medicine (Nielsen, Van & Marie, 2016). Hence, key values of this program is to value the people who use drugs in the community and is willing to act to enhance their well being as well as caring about their health and well being of their peers (Marianne & Suzanne, 2017).

In Victoria, hundreds of people die every year due to illicit drug or pharmaceutical overdose (Tadros et al., 2015). The Community Overdose Prevention Education program (COPE) contributes in the organisation with clients who use opioids or who may witness an overdose (Coffin et al., 2015). This program works by providing support and enhance of

training the clients to recognise, prevent and respond to opioid overdose by using reversible medication of naloxone (Coffin et al., 2015). Naloxone is very safe and reliable to use (Lewis, Vo & Marc, 2017). Some studies exhibit that the majority of people who die from overdose of opioid failed to derive proper attention to the medical information (Tadros et al., 2015). And in most jurisdictions, naloxone only used in the hospital settings during emergency medical services (Tadros et al., 2015). Nevertheless, regarding to the many fatal opioids overdosed, take home naloxone programs have been established with recognition and provision for the comprehensive training in respond to overdose prevention (Sondhi et al., 2016). Therefore, the wider provision of opioid overdose and take home naloxone indicate that this life saving drug available to purchase over the counter or immediately accessible in the place where overdose occurs (Sondhi et al., 2016).

The role for take home naloxone

In regarding to the recent literature highlights that a major public health issue in the society is the prescription of opioid overdose with the death result more than seventy percent, stated by World Health organisation (2018). In addition, patients have slightly understanding for the risks factor for opioid toxicity. Yet, it has been concern that the opiate abuser, may want to self administering of naloxone without understanding the use of this antidote instruction; which it can lead to drug misuse (World health Organisation, 2018). Thus, it is essential that the opiate user as well as their families and their friends involve with the training that facilitated by general practitioner or pharmacists and other healthcare professional team (Hurley, 2011b).

Furthermore, the training must comprise of identifying the intervention and the risks of overdose includes naloxone administration (Lewis, Vo & Marc, 2017). The training intervention for naloxone administration encompass of the potential provision and training to reinforce stigmatising assumptions of opioids consumer (Nickerson et al., 2016). Likewise, long detail training need to be request and should be available to train. This include CPR, it encompasses of positioning patient to rescue breathing if able, and injecting naloxone into deltoid or the person thigh (Marianne & Suzanne, 2017, August 01). Despite to the training, it's important to call an ambulance, if the opioid action exceeding more than naloxone (Marianne & Suzanne, 2017, August 01). Thus, this risk factors are significant to include in any brief training.

Conclusion

To conclude, opioid can be characterised as a strong desire by the opiate user and for the used as an analgesia to treat for chronic pain and other pain management. In relation to the opioid overdoses the risk factors include with the substance use disorders history; prescribed in a high dosage; aging and mental health issues. Naloxone is partially or fully reversible of opioid depression that involve in the treatment of respiratory issues due to synthetic opioids such as methadone, oxycodone and other chronic pain opioid. Although, naloxone has no or small chance of getting side affect; but while reversing an opioid overdose, these symptoms may present such as body aches, dizziness, restlessness, Nervousness, nausea, chills, slight fever and stomach pain. Meanwhile, take home naloxone is a safely method in reducing overdose deaths, that recommended by the World Health Organization. Apart from that, Victoria has created the Community Overdose Prevention

Education program (COPE) as well as other naloxone education program, in order to support and training the clients to prevent, and respond to opioid overdose by using reversible medication of naloxone. Finally, it is critical for health professional to support and educate the patients to understand the roles and other risk factors that relates to opioid overdose and take home naloxone by training appropriately with the used of antidote medication.

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