CounterAct Nasal Device User Preference Study

Background: With nearly 255 people dying in the United States every day from opioid overdoses, the Opioid Overdose Epidemic has showed no signs of slowing (1). In 2017, The United States Health and Human Services (HHS) developed a 5 Point Strategy to address the opioid epidemic. Expanding access to Naloxone is one of the five points.

To increase access and availability to those ingesting opioid medications, another intranasally delivered device, the CounterAct Cap, was designed to provide another means of counteracting the effects of an opioid overdose. The CounterAct Cap aligns with the HHS Five Point Strategy by integrating a single unit-dose nasal spray of life-saving Naloxone into the pill bottle cap holding an opioid patient's prescription pills. The CounterAct Cap sits atop the bottle of opioid medication and can be readily deployed in the event of an opioid overdose emergency. The combination of the CounterAct Cap and pill bottle provides instant access to a counteragent paired with the agent in one dispensing system.

Aim: As part of continuing development of the CounterAct Cap, an initial study sampling residents of several Southern California Counties was conducted to determine user preference with the CounterAct Cap device.

Methods: All participants were shown pictures, videos, and the opportunity to handle the CounterAct Cap to inform them of the device's utility and purpose. After a brief introduction to the device and personal review of collateral information, participants answered 3 questions.

Participants: 43 participants were collected, with 29 meeting the inclusionary criteria.

The inclusionary criteria consisted of:

1) The participant had any experience with a Naloxone based product.
2) The participant been involved in an opioid overdose either as a victim or observer/first responder.
3) The participant had a friend or family member that had overdosed on opioids.

Participants were included in this pilot study if they met at least one of the inclusionary criteria.

The following are the demographics of the initial sample:

Mean Age:	**49.8 years**				
Gender	18 Females (62%)	11 Males (38%)			
Ethnicity	22 White (75%)	2 Latino (7%)	2 African American (7%)	1 Native American (4%)	2 Asian (7%)
Employment	19 Employed (65%)	10 Unemployed (35%)			
Marital Status	19 Married (65%)	10 Single (35%)			

Results:

1) Do you think the CounterAct Cap would save lives in an opioid overdose emergency?

Yes: 29 (100%) No: 0 Uncertain: 0

2) Would you want to have access to the CounterAct Cap if you have friends or family who use opioid medication?

Yes: 27 (93%) No: 0 Uncertain: 2 (7%)

3) Would you request your pharmacist or doctor to prescribe the CounterAct Cap for friends or family members that are prescribed opioid medication?

Yes: 27 (93%) No: 0 Uncertain: 2 (7%)

The 29 Participants were asked for general impressions of the Counteract Cap. The following are sampling of statements from the participants:

-"Brilliant"
-"Should be a must for every household."
- The cap on top of the pills makes it easy to get to in an emergency"
- "Is this available now from my doctor?"
-"I wish I had this when my son overdosed rather than waiting for 911"
-"The combination of the two drugs together is great"
-"This could really save lives"
-"Great technology"
-"Where can we get one?"

Discussion: The results from this initial User Preference Study are overwhelmingly favorable for the device and its indicated use. Participants reinforced the CounterAct Cap's market focus and demonstrated a highly positive reaction to the device and its purpose. Introduction of the CounterAct Cap will expand access to life-saving medications and assist with reduction of the opioid overdose epidemic. The sampling results warrant further market research with a larger, more diverse participant population.

References: A Time of Crisis for the Opioid Epidemic in the USA, vol. 398, Issue 102977, p.277, The Lancet).