Naloxone (INN, BAN, USAN) is a pure opioid antagonist developed by Sankyo in the 1960s.

Agonists stimulate the activity of the opioid receptor, while antagonists reduce its activity. Most other opioid antagonists have both agonist and antagonist properties; naloxone does not. Naloxone is a drug used to counter the effects of opioid overdose, such as heroin or morphine, specifically the life-threatening depression of the central nervous system, respiratory system, and hypotension secondary to opiate overdose. Naloxone is also experimentally used in the treatment for congenital insensitivity to pain with anhidrosis, an extremely rare disorder (one in 125 million) that renders one unable to feel pain, or differentiate temperatures. It is marketed under various trademarks including Narcan, Nalone, Evzio, and Narcanti, and has sometimes been mistakenly called “naltrexate”. It is not to be confused with naltrexone, an opioid receptor antagonist with qualitatively different effects, used for dependence treatment rather than emergency overdose treatment. Naloxone is also combined with buprenorphine in a drug called Suboxone, which is used to treat opioid addiction.

The efficiency of naloxone for the management of secondary brain injury after severe traumatic brain injury (sTBI) remains undefined, in the early stage for sTBI patients might effectively reduce mortality, control intracranial pressure (ICP), and significantly improve the prognosis [1)].

1)

Zhang H, Wang X, Li Y, Du R, Xu E, Dong L, Wang X, Yan Z, Pang L, Wei M, She L. Naloxone for Severe Traumatic Brain Injury: A Meta-Analysis. PLoS One. 2014 Dec 19;9(12):e113093. doi: 10.1371/journal.pone.0113093. eCollection 2014. PubMed PMID: 25526618.