

## **Cannabinoids for Neuropathic Pain: Are They Safe or Effective?**

**Andrew SC Rice**

*Imperial College London, United Kingdom*

Our understanding of cannabinoid pharmacology and endocannabinoid physiology has advanced considerably since the discovery of CB<sub>1</sub> and CB<sub>2</sub> cannabinoid receptors and their endogenous ligands. There is now a large body of basic science evidence supporting the hypothesis of cannabinoid-mediated analgesia. However, clinical use of cannabinoid analgesics requires the following to be ascertained:

- 1. Evidence of clinical efficacy and equivalence or superiority to existing therapies?** Meta-analyses of neuropathic pain clinical trials conducted to date clearly demonstrate a lack of efficacy for cannabinoids in neuropathic pain. Furthermore, a number of existing alternative agents are superior to cannabinoids for the treatment of neuropathic pain.
- 2. Are cannabinoids associated with short and long-term individual harm and societal harm?** The clinical trials conducted to date do not reveal alarming short-term adverse effects associated with therapeutic cannabinoids. However, such clinical trials are not designed, and are of insufficient duration and size, to detect serious, but relatively infrequent, adverse effects. Nevertheless, there are consistent epidemiological data which show that cannabis use is associated with a dose-related increased risk of psychosis and cognitive impairment, especially in susceptible individuals – the relevance of this for therapeutic use is unknown. High potency prescribed cannabinoids have diversion/misuse potential and such societal dangers are evident from problems seen with misuse of prescription opioids.

In summary, the cannabinoids tested in clinical trials to date do not reveal an efficacy signal for the treatment of neuropathic pain. There are potential long-term mental health risks associated with cannabinoid use. There are unknown societal risks from diversion of therapeutic cannabinoids.

The lecture will conclude with a brief description of the ongoing work of the IASP Presidential Taskforce on Cannabis and Cannabinoid Analgesia. A robust and exhaustive review of the basic science and the evidence for clinical efficacy and harm is being undertaken and will be complete by early 2020. The speaker will describe how IASP members can actively engage in the work of the task force and at the same time be trained in systematic review methods.