According to the International Association for the Study of Pain (IASP), pain is defined as a pleasant experience (sensation and / or sensation) associated with or associated with potential or confirmed tissue damage. Whether or not the debate continues today should not change this definition. However, the classification of pain medications is stable; categories of nonopioid analgesics and opioid analgesics.

Nonopioid analgesics

Acetaminophen (paracetamol): for mild to moderate pain, moderate to severe pain (as adjunctive therapy to opioids) and temporary relief from fever. Acetaminophen should not be used for neuropathic pain because it has no documented efficacy.

Non-steroidal anti-inflammatory drugs (NSAIDs): These drugs are used to temporarily relieve moderate pain, pain associated with inflammation, and fever. As with other medications, there is no evidence that NSAIDs are effective in treating neuropathic pain. Some NSAIDs have other pain-related indications (egg, use of aspirin for secondary prevention of myocardial infarction) that will not be covered in this review.

Antidepressant medications: selective serotonin and norepinephrine reuptake inhibitors (SNRIs), especially duloxetine, and tricyclic antidepressants (TCAs), especially amitriptyline, have shown efficacy in some neuropathic pain conditions. Therefore, it is recommended for the first line of treatment. In addition, in addition to appropriate indications for psychiatric disorders such as major depressive disorder and generalized anxiety disorder, this drug is indicated for other pathologies such as fibromyalgia and chronic musculoskeletal pain. Antidepressants are also recommended as prophylactic treatments for migraine and tension-type headaches (amitriptyline). Both pharmacological groups seem to be more effective in patients with both depressive symptoms and pain relief than in patients with pain alone.

Antiepileptic drugs: Some antiepileptic drugs are also known to have analgesic properties through the mechanism of action of reducing the release of neurotransmitters or neuronal firing. The most <u>common antiepileptic drugs used to treat pain</u> are gabapentin and pregabalin.

Gabapentin: post herpetic neuralgia and neuropathic pain in adults.

Pregabalin: Neuropathic pain associated with diabetic peripheral neuropathy or spinal cord injury, post herpetic neuralgia, and fibromyalgia.

Oxcarbazepine and carbamazepine: trigeminal or glossopharyngeal neuralgia

Local anesthetics: Lidocaine is one of the most commonly used drugs in this drug class, which is FDA-approved for post herpetic neuralgia and recommended for peripheral neuropathic pain.

Opioid Agents

Opioids are a broad class of drugs with structural similarities to the natural plant alkaloids found in opium, which was originally derived from the resin of the poppy plant, Papaver somniferum. They are recognized as the most effective and widely used drugs in the treatment of severe pain. Opioids are among the most controversial analgesics, particularly due to their potential for addiction, tolerance, and side effects. Although opioids have indications for the treatment of <u>acute and chronic pain</u>, Centers for Disease Control and Prevention guidelines recommend that clinicians prescribe opioids at the lowest effective dose and for the shortest expected duration only if the expected benefits for pain and function outweigh the risks. to treat pain severe enough to require opioids.

How XR works for pain relief

Several VR applications have been shown to reduce the perception of <u>pain for the patient</u> <u>using interventions that provide a more engaging experience that distracts the patient from</u> <u>acute and/or chronic pain symptoms</u>.

Brennan Spiegel "VR reduces the perception of pain in at least three different ways. First, it cleanses the brain of toxic signals from the body. Second, it creates the illusion of speeding up time, shortening the length of painful episodes. Third, it suppresses the signal in the thigh that prevents the thigh from reaching the brain. This combination of effects supports immersion's ability to relieve pain. "

Use of VR for Acute and Chronic Pain Treatments

VR has been used to <u>manage</u> pain and discomfort associated with certain painful medical procedures and conditions, including childbirth, episiotomy treatments, dressings, cancer, colonoscopies, and some other routine medical procedures.

Chronic pain conditions such as fibromyalgia, neck pain, <u>back pain</u>, or chronic regional pain syndrome are being investigated.

In several clinical trials and settings, participants immersed in the VR experience demonstrated <u>reduced pain</u>, overall discomfort/discomfort, and reported willingness to use VR for pain management.

VR acts as a non-pharmacological form of analgesia (pain pain), which activates some emotionally-affective, cognitive-based emotions and centers of attention in the body's complex pain modulation system.

Possible benefits include:

- Reduce expensive and dangerous drug addiction
- Reduce morbidity or mortality
- Reduce medical bills for opiate side effects/addiction programs
- Subsidy to pharmaceutical companies

The most effective reasons for using VR for patients are:

- There is no harm from medicine
- A less painful surgical experience and the ability to manage your own pain symptoms

The Role of XR in Minor Surgery

Minor surgeries that require local anesthesia can cause anxiety and lead to delays or even rescheduling of procedures.

<u>Future</u> benefits of VR in pain and disorder management:

- VR for dental procedures
- VR for injection anxiety
- VR for other minor operations that require local anesthesia, such as podiatry procedures are taught in South Devon and Torbay.

We agree that VR offers a non-pharmacological digital intervention, which is accessible to many patients with invasive interventions, improving the patient experience, the quality of healthcare and the consistency of favorable results.

Role of Pain Clinics

Most people who suffer from chronic pain can try many of the above treatments on their own and find some control. But for some, no matter what treatment approach they need, they suffer from weakness. For them, pain clinics-special care centers dedicated solely to non-inflammatory pain management-may be the answer. Some pain clinics are associated with hospitals, some are private; In both cases, there is inpatient and outpatient treatment.

Pain clinics often use a multidisciplinary approach involving doctors, psychologists, and physical therapists. Patients should play an active role in their own treatment. In many cases, the goal is not only to relieve pain, but to teach <u>chronic patients how to manage pain</u> and function.

Various studies have shown a 50% increase in pain <u>relief</u> for chronic pain patients after a visit to a pain hospital, and many people learn to cope better and can resume normal activities.