Understanding the DBC Recommendation and PharmaCare Coverage Decision

**Background**
- Patients with cancer often experience pain. Cancer pain may be caused by the cancer itself or by procedures used to diagnose or treat it. The pain may occur in any area of the body. The area in which the pain occurs depends on the type of cancer.
- Cancer pain is treated with many methods and types of medicine. Patients with advanced cancer may not get relief from high doses of strong painkillers (opioid analgesics). Adding a second drug will sometimes help control the cancer pain better. This is called **add-on treatment**.
- The drug product that contains extracts of marijuana with the chemical names of **delta-9-tetrahydrocannabinol plus cannabidiol** has the brand name **Sativex®**.
  - These drugs have a direct action on the nerves to relieve pain.
  - In advanced cancer, Delta-9-tetrahydrocannabinol plus cannabidiol is used to treat pain not controlled by high doses of strong painkillers known as opioid analgesics. It is also used to treat nerve pain in patients with multiple sclerosis.
  - This drug product is sprayed under the tongue or on the inside of the cheek (**buccal administration**).

**Why was this drug reviewed?**
- Drug company request.

**What did the review find?**
- A small study of delta-9-tetrahydrocannabinol plus cannabidiol followed patients with cancer pain for 2 weeks. These patients were also taking maximal doses of strong painkillers known as opioid analgesics. Overall, the study did not show an important improvement in pain relief.
  - Patients had the following side effects: decreased hunger, nausea, vomiting and effects on memory and thinking. These side effects did not cause patients to stop taking the drug.
- It is unknown if this drug is safe to use for the long-term treatment of cancer pain.
- This drug product is more costly than other drugs used as add-on treatment for cancer pain.

**What decision was made?**
- Delta-9-tetrahydrocannabinol plus cannabidiol will not be covered.

**Key Term(s)**
- No key term.
Delta-9-tetrahydrocannabinol plus cannabidiol (Sativex®) as adjunctive pain relief in advanced cancer

**Drug Class**
- Cannabinoid analgesic

**Available Dosage Forms**
- 27 mg/mL / 25 mg/mL buccal spray

**Sponsor/Requestor**
- Bayer Inc.

**Submission (Request) to PharmaCare**
- Drug review of delta-9-tetrahydrocannabinol plus cannabidiol (Sativex®) for the following Health Canada-approved indication:
  - Adjunctive analgesic treatment in adult patients with advanced cancer who experience moderate to severe pain during the highest tolerated dose of strong opioid therapy for persistent background pain.

**Drug Benefit Council (DBC) Recommendations**
- Delta-9-tetrahydrocannabinol plus cannabidiol not to be listed.

**Reasons for the Ministry of Health Services Decision**
- A literature search identified one randomized controlled trial (RCT) evaluating the effect of delta-9-tetrahydrocannabinol plus cannabidiol in adult patients with moderate to severe cancer-related pain despite maximal opioid therapy. The RCT included 118 patients for only two weeks duration. The trial has not been published as a full-length manuscript.

  - In the RCT, delta-9-tetrahydrocannabinol plus cannabidiol provided statistically significant improvement over placebo on an 11-point numerical rating scale (NRS-11) for pain, but this improvement was below the minimum clinically important difference defined for this pain scale. There was a higher proportion of patients who were “responders” (defined as > 20% improvement in pain scale) with a number needed to treat (NNT) of 6, but there were no differences between the groups in other measures of pain on other scales, and no differences in the use of escape pain medication.

  - The long-term effect of this agent on cancer pain is not known.

  - In the RCT, delta-9-tetrahydrocannabinol plus cannabidiol was associated with more adverse events than placebo (i.e. nausea and vomiting; worsening appetite, memory and cognition), but the incidence of serious adverse events and withdrawal due to adverse events was not significantly different.

  - Delta-9-tetrahydrocannabinol plus cannabidiol is more costly than other adjunct agents used to manage cancer pain (cost per vial is $124.95, which contains up to 51 doses).

**Decision and Status**
- Not a benefit.
- December 23, 2008

**Key Term(s)**
- No key term.