**Critically Appraised Topic (CAT)**

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| **Project Team:**  |
| **2B-1** |
| **Project Team Participants:**  |
| **Lauren Bostanche, Alexis Tomaszewski, Gabriel Kosmalski, Amanda Witzlib** |
| **Clinical Question:** |
| **What are the clinical signs of oral lichen planus and what are some of the best ways to relieve symptoms?** |
| **PICO Format:** |
| **P:** |
| **Patients with oral lichen planus**  |
| **I:** |
| **Topical corticosteroids** |
| **C:** |
| **No treatment** |
| **O:** |
| **More effective reduction of symptoms** |
| **PICO Formatted Question:** |
| In patients with oral lichen planus, do topical corticosteroids or no treatment provide better reduction of symptoms for patient? |
| **Clinical Bottom Line:** |
| **Topically applied clobetasol propionate 0.05% (mixed with 4% hydroxyethyl cellulose gel) is an accepted treatment to relieve pain symptoms from OLP** |
| **Date(s) of Search:**  |
| **10/14/20, 9/30/20** |
| **Database(s) Used:** |
| **PubMed** |
| **Search Strategy/Keywords:** |
| **Topical steroids, Clobetasol, Oral lichen Planus, Systematic Review, Meta-analysis** |
| **MESH terms used:** |
| Lichen Planus, Oral / drug therapy, Administration, topical, Steroids / therapeutic use, Clobetasol / therapeutic use, Pain management |
| **Article(s) Cited:** |
| Lodi G, Manfredi M, Mercadante V, Murphy R, Carrozzo M. Interventions for treating oral lichen planus: corticosteroid therapies. Cochrane Database Syst Rev. 2020 Feb 28;2(2):CD001168. doi: 10.1002/14651858.CD001168.pub3. PMID: 32108333; PMCID: PMC7047223.Arduino PG, Campolongo MG, Sciannameo V, Conrotto D, Gambino A, Cabras M, Ricceri F, Carossa S, Broccoletti R, Carbone M. Randomized, placebo-controlled, double-blind trial of clobetasol propionate 0.05% in the treatment of oral lichen planus. Oral Dis. 2018 Jul;24(5):772-777. doi: 10.1111/odi.12821. Epub 2018 Mar 13. PMID: 29297958. |
| **Study Design(s):** |
| **Systematic Review of RCTs, Individual RCT** |
| **Reason for Article Selection:** |
| **High levels of evidence, Relevant to PICO question** |
| **Article(s) Synopsis:** |
| **Systematic Review article: Searched several databases including Cochrane Oral Health Group Trials Register, the Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE and EMBASE.** **Studies were scanned and reviewed independently. Studies were graded with various levels of bias. It is well known that TCS are the first line of treatment for oral lichen planus. Unable to identify a RCT comparing TSC to a placebo. Unclear what the dosage, concentration, or which specific TCS is the standard of care.****Relatively poor quality of trials, including high bias****Individual RCT****Computer generated randomization, double blind****Stage I = Topical treatment for 8 weeks, applied twice per day****Stage II = Follow up period of 6 months****Clobetasol group symptoms were better and more stable than placebo from week 1 to week 4 (continuous data). Some adverse effects after first 8 weeks. Relapse and need to be retreated in both groups****Clobetasol is widely accepted and should be considered as the first line of treatment. OLP lesions tend to relapse, need to consider long term effects and limitations of TCS. Relatively small sample size. Some mild adverse side effects** |
| **Levels of Evidence:** (For Therapy/Prevention, Etiology/Harm) See <http://www.cebm.net/index.aspx?o=1025>[x]  **1a** – Clinical Practice Guideline, Meta-Analysis, Systematic Review of Randomized Control Trials (RCTs)[x]  **1b** – Individual RCT[ ]  **2a** – Systematic Review of Cohort Studies[ ]  **2b** – Individual Cohort Study[ ]  **3** – Cross-sectional Studies, Ecologic Studies, “Outcomes” Research[ ]  **4a** – Systematic Review of Case Control Studies[ ]  **4b** – Individual Case Control Study[ ]  **5** – Case Series, Case Reports[ ]  **6** – Expert Opinion without explicit critical appraisal, Narrative Review[ ]  **7** – Animal Research[ ]  **8** – In Vitro Research |
| **Strength of Recommendation Taxonomy (SORT) For Guidelines and Systematic Reviews**See article **J Evid Base Dent Pract 2007;147-150**[ ]  **A** – Consistent, good quality patient oriented evidence[x]  **B** – Inconsistent or limited quality patient oriented evidence[ ]  **C** – Consensus, disease oriented evidence, usual practice, expert opinion, or case series for studies of diagnosis, treatment, prevention, or screening |
| **Conclusion(s):** |
| **It is well known that TCS are the first line of treatment for oral lichen planus.** **No difference between Topical Corticosteroids (TCS) and Topical Calcineurin Inhibitor (TCI) Treatment****No difference for pain relief between low dose clobetasol and high dose clobetasol****No evidence that any specific TCS reduces pain better than other TCS. OLP lesions tend to relapse, need to consider long term effects and limitations of TCS.** **Topically applied clobetasol propionate 0.05% (mixed with 4% hydroxyethyl cellulose gel) is an accepted treatment to relieve pain symptoms from OLP** |