**Critically Appraised Topic (CAT)**

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| **Project Team:** |
| **7A-3** |
| **Project Team Participants:** |
| **Tyler, Caleb, Nataliia, Isabella** |
| **Clinical Question:** |
| **What is thte dental management of a patient with atherosclerosis** |
| **PICO Format:** |
| **P:** |
| **Cardiovascular Complications** |
| **I:** |
| **Limiting Epinephrine during dental procedures** |
| **C:** |
| **Administering LA with epinephrine** |
| **O:** |
| **Minimizing the chance of a cardiac emergency in the dental office** |
| **PICO Formatted Question:** |
| In patients with cardiovascular complications, will local anesthetic that does not contain epinephrine compared to using L Awith epinephrine minimize the chance of a cardiac emergency in the dental chair? |
| **Clinical Bottom Line:** |
| Click here to enter text. |
| **Date(s) of Search:** |
| **10/10/20** |
| **Database(s) Used:** |
| **PubMed** |
| **Search Strategy/Keywords:** |
| **Dentistry, local anesthetics, cardiovascular, epinephrine** |
| **MESH terms used:** |
| **Dentistry, local anesthesia, cardiovascular abnormalities, vasoconstrictors** |
| **Article(s) Cited:** |
| **\*See slides** |
| **Study Design(s):** |
| **Two Systematic Reviews, and one RCT** |
| **Reason for Article Selection:** |
| **They directly related to our PICO questions** |
| **Article(s) Synopsis:** |
| **All three articles either reviewed or tested the implications of using LA with, and in some cases without, vasoconstrictor agents to see the effects on the cardiovascular system in patients with cardiopathies.** |
| **Levels of Evidence:** (For Therapy/Prevention, Etiology/Harm)  See <http://www.cebm.net/index.aspx?o=1025>  **1a** – Clinical Practice Guideline, Meta-Analysis, Systematic Review of Randomized Control Trials (RCTs)  **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  **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):** |
| **There needs to be more research done on this topic before creating a clinical practice guideline. It is very important that we consult with the patient’s cardiologist, ENT, primary physician, etc., at all times to stay up to date with the patient’s current medical status to provide the highest level and quality of care while keeping the patient safe.** |