**Critically Appraised Topic (CAT)**

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| **Project Team:** |
| **2A-3** |
| **Project Team Participants:** |
| **Chante Parker (D3), Anna Goetz (D4), Courtney Pagenkopf (D2), Elyse Cao (D1), Meghan Ryan (D1)** |
| **Clinical Question:** |
| **In periodontally stable posterior teeth, is It better to do elective endodontic treatment followed by post/ core placement and crown, or is it better to extract and place implants for an implant supported bridge?** |
| **PICO Format:** |
| **P:** |
| **patients with periodontally stable teeth** |
| **I:** |
| **Endo post/core/crown** |
| **C:** |
| **EXT and implant bridge placement** |
| **O:** |
| **More predictable and successful long term** |
| **PICO Formatted Question:** |
| **In patients with periodontally stable teth, is endo/post/core/crown or EXT and implant bridge placement more predictable and successful long-term?** |
| **Clinical Bottom Line:** |
| **The patient wants to maintain and fix tooth #20. Research and clinical judgment/ expertise leas us to suggest and support the patient’s decision to elect for endodntic treatment with post and core and crown restoration. Research supports endodontic treatment versus implant therapy due to:**   * **Good success/ survival rates (>90%)** * **More predictable outcomes** * **Less chance of subsequent complications** * **Less need for intervention** * **Good overall patient acceptance** |
| **Date(s) of Search:** |
| **September 5th and 12th** |
| **Database(s) Used:** |
| **Pubmed**  **Journal References: Journal of Prosthetic Dentistry, Journal of Endodontics, and Journal of Dental Research** |
| **Search Strategy/Keywords:** |
| **Studies containing information related to the predictability, success, and survival rates of implant therapy versus endontic therapy.**  **Keywords: dental prosthesis- implant supported, post and core, success, survival** |
| **MESH terms used:** |
| **Tooth extraction, dental implant, dental prosthesis- implant supported, endodontic therapy, root canal therapy, crowns, post and core technique** |
| **Article(s) Cited:** |
| **Article 1:** Setzer, F C, and S Kim. “Comparison of long-term survival of implants and endodontically treated teeth.” *Journal of dental research* vol. 93,1 (2014): 19-26. doi:10.1177/0022034513504782  **Article 2:** Torabinejad, M. et al. “Outcomes of root canal treatment and restoration, implant-supported single crowns, fixed partial dentures, and extraction without replacement: a systematic review.” *The Journal of prosthetic dentistry* 98 4 (2007): 285-311 . |
| **Study Design(s):** |
| **Article 1: Systematic Review/ Meta Analysis**  **Article 2: Systematic Review/ Meta Analysis** |
| **Reason for Article Selection:** |
| **Article 1:**  **Article 1:** |
| **Article(s) Synopsis:** |
| **Article 1:**  **Article 2:** |
| **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):** |
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