**Critically Appraised Topic (CAT)**

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| **Project Team:** |
| **Group 6B** |
| **Project Team Participants:** |
| **Scott Sutton, Lato Nguyen, Hanfrey Dang, Abigail Yurs** |
| **Clinical Question:** |
| **How does an implantsupported prosthesis compare to a traditional removable prosthesis for restoring this patients form and function?** |
| **PICO Format:** |
| **P:** |
| **Partial edentulous patients** |
| **I:** |
| **Implant supported**  **prosthesis** |
| **C:** |
| **Traditional RPD** |
| **O:** |
| **Better oral health-related**  **quality of life (OHRQoL)** |
| **PICO Formatted Question:** |
| **In partial edentulous patients, do Implant supported**  **prostheses provide better Oral health-related quality of**  **life compared to traditional RPD?** |
| **Clinical Bottom Line:** |
| **Implant supported prosthesis has both short- and longterm positive effects on OHRQoL**  ** Traditional RPDs positively affected OHRQoL in the short**  **term.**  ** However, Implant supported prosthesis showed greater**  **short-term improvement in OHRQoL than Traditional**  **RPD.** |
| **Date(s) of Search:** |
| **10/10/2020** |
| **Database(s) Used:** |
| **PubMed** |
| **Search Strategy/Keywords:** |
| **Traditional RPDs, Implant**  **supported prosthesis, oral health-related quality of life,**  **partially edentulous patients.** |
| **MESH terms used:** |
| **denture, partial, removable, dental**  **implants, oral health, quality of life.** |
| **Article(s) Cited:** |
| **Citation:Ali Z, Baker SR, Shahrbaf S, Martin N, Vettore**  **MV. Oral health-related quality of life after**  **prosthodontic treatment for patients with partial**  **edentulism: A systematic review and meta-analysis. J**  **Prosthet Dent. 2019 Jan;121(1):59-68.e3. doi:**  **10.1016/j.prosdent.2018.03.003. Epub 2018 Jul 10.**  **PMID: 30006220.**  **https://pubmed.ncbi.nlm.nih.gov/30006220/** |
| **Study Design(s):** |
| **systemic review & meta analysis** |
| **Reason for Article Selection:** |
| **Random-effects models were used to compare OHRQoL**  **change scores**  ** 95% confidence intervals** |
| **Article(s) Synopsis:** |
| **Methods**  ** Electronic database and manual searches were**  **conducted to identify cohort studies and clinical**  **trials by 2 independently reviewers.**  ** Criteria = individuals receiving implant-supported**  **crowns (ISCs), implant-supported fixed dental**  **prostheses (IFDPs), implant-supported removable**  **dental prostheses (IRDPs), tooth-supported fixed**  **dental prostheses (TFDPs), and removable partial**  **dentures (RPDs).**  ** Sample size = 2147 identified studies**  ** Met inclusion criteria:**  ** 2 randomized controlled trials**  ** 21 cohort studies**  **Results**  ** Pooled mean OHRQoL change ≤9 months**  ** 15.3 for TFDP, 11.9 for RPD, 14.9 for IFDP**  ** Pooled standardized mean change OHRQoL change >9 months**  ** 13.2 for TFDP, 15.8 for IFDP**  ** Conclusions**  ** Direct comparisons ≤9 months between TFDP against IFDP and**  **RPD against IFDP significantly favored IFDP in both cases.**  ** Limitations & Bias**  ** Studies were of low or moderate risk of bias** |
| **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):** |
| **Implant supported prosthesis has both short- and longterm positive effects on OHRQoL**  ** Traditional RPDs positively affected OHRQoL in the short**  **term.**  ** However, Implant supported prosthesis showed greater**  **short-term improvement in OHRQoL than Traditional**  **RPD.** |