**Critically Appraised Topic (CAT)**

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| **Project Team:** |
| **10B-4** |
| **Project Team Participants:** |
| **Christopher Flood, Nikita Tongas, Samuel Chen, Benjamin Gutschow** |
| **Clinical Question:** |
| Should I deliver a removable prosthesis immediately following my patients edentulation? |
| **PICO Format:** |
| **P:** |
| Denture seeking patients who still need extractions |
| **I:** |
| **Immediate placement of a complete denture** |
| **C:** |
| **Placement of a complete denture after healing** |
| **O:** |
| **Patient satisfaction** |
| **PICO Formatted Question:** |
| In denture seeking patients who still need extractions, how does the immediate placement of a complete denture compare to the placement of complete denture after healing regarding patient satisfaction? |
| **Clinical Bottom Line:** |
| **According to an Individual Cohort Study and a Systematic Review of RCTs and Clinical Case Reports, patient satisfaction with denture treatment is significantly influenced by their expectations prior to treatment. As a result, this is a difficult topic to determine the “best” treatment for patient satisfaction. If the provider can adequately inform the patient and they are well prepared for the difficulties surrounding the transition to dentures, then they are likely to be more satisfied with the quality of their dentures, regardless if they wait for healing or proceed with an interim denture.** |
| **Date(s) of Search:** |
| **10/18/20** |
| **Database(s) Used:** |
| **PubMed.gov ; Google Scholar** |
| **Search Strategy/Keywords:** |
| **Complete Denture, Edentulation, Patient Satisfaction, Tooth Extraction, Residual Ridge Resorption, Expectations** |
| **MESH terms used:** |
| **Complete Denture AND Tooth Extraction NOT Dental Implant** |
| **Article(s) Cited:** |
| **Article 1: Marachlioglou, Carlos Ricardo Martins Zeitune, et al. "Expectations and final evaluation of complete dentures by patients, dentist and dental technician." *Journal of oral rehabilitation* 37.7 (2010): 518-524.**  **Article 2: Fitzpatrick, Brian. "Standard of care for the edentulous mandible: a systematic review." *The Journal of prosthetic dentistry* 95.1 (2006): 71-78.**  **Article 3:** Critchlow, Simon B., and Janice S. Ellis. "Prognostic indicators for conventional complete denture therapy: a review of the literature." *Journal of dentistry* 38.1 (2010): 2-9. |
| **Study Design(s):** |
| **Article 1: Individual Cohort Study**  **Article 2: Systematic Review (RCTs & Clinical Case Studies)**  **Article 3: Narrative Review** |
| **Reason for Article Selection:** |
| **Article 1: *Addresses patient satisfaction aspect of PICO question***  **Article 2: *Compares treatment options for denture seeking patients***  **Article 3: *Discusses different factors influencing complete denture therapy*** |
| **Article(s) Synopsis:** |
| **Article 1:**   * **Before and after treatment, patients had higher expectations for aesthetics and function of their complete dentures than both the dentist and dental technician evaluating the case.**    + **Dental professionals are more aware of potential limitations and complications after completing an initial examination** * **Significant variation between dentist and patient regarding the expected outcome of complete denture treatment.**    + **Perception of dentist / prior dental experiences influenced how satisfied patients were with treatment.**   **Article 2:**   * **244 articles identified, 39 selected for review**    + **7 randomized control trials, 32 clinical trials** * **While there is not a consensus standard of care for the edentulous mandible, an implant supported overdenture (with 2 implants) has shown the greatest combination of patient and dentist satisfaction**    + **Also the most expensive option** * **Prior experiences as well as patient expectation proved to have the biggest impact on patient satisfaction with treatment for edentulation.**   **Article 3:**   * **33 articles were reviewed**   + **3 RCTs, 19 clinical experimental studies, 7 non-experimental clinical studies, 4 review papers.** * **Varying results in patient satisfaction for potential prognostic indicators of: Age, Demographics, Psychological factors, Expectations / Attitudes, Residual Ridge Form / Anatomy, Dentist-Patient Relations** * **Patients who had been edentulous for the least amount of time expressed lower satisfaction levels in comparison to patients who had been edentulous for longer.** |
| **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):** |
| **Although there is limited quality patient-oriented evidence comparing patient satisfaction with the timing of delivery for complete dentures in relation to last tooth extractions, there are plenty of quality publications that can be pieced together to form a bigger picture. When focusing on patient satisfaction, the most important aspect of delivering dentures is preparing the patient mentally and managing their expectations. If a patient expects to restore an unreasonable amount of function, they will be greatly disappointed. At the end of the day, it is better to undersell the function of dentures so that the patients might be pleasantly surprised.** |