Retention costs of periodontally compromised molars in a German population

Schwendicke, F., Plaumann, A., Stolpe, M., Dörfer, C.E., Graetz, C.


Summarised from original article with kind permission from Wiley Online Library

Copyright © 1999-2014 John Wiley & Sons, Inc. All Rights Reserved

Methods:

This is a retrospective cohort study including patients who had received periodontal therapy due to moderate to advanced periodontal disease. The study aimed to quantify the costs per year of long-term supportive periodontal therapy (SPT). Patients had to present at least one first or second molar in situ and who attended regular SPT for ≥9 years (3-12 consecutive years) and who had received periodontal therapy in the years 1982-1998 at the Christian-Albrechts-University Kiel, in Germany. The research was supported by the Minister of Higher Education and Research of Saxony-Anhalt.

Results:

Costs were calculated based on fee items, according to the German fee structure in the context of a mixed public-private payment setting. The costs were distributed among all teeth present. Costs were calculated per tooth; in those cases where the treatment was completed, the costs were distributed according to the observation time (censoring).

Effectiveness was defined as years of tooth retention in function. Tooth retention was calculated for each patient, and the effect of the treatment was evaluated for each tooth. The tooth retention was influenced by periodontal status, as well as patient-level risk factors.

Discussion:

Periapical involvement (FI), bone loss, mobility, endodontic, and prosthetic status, as well as patient-level risk factors, may influence the cost-effectiveness ratio. These factors may also affect the predictability of long-term survival of compromised teeth. This predictability, however, may be diminished when these teeth are affected by other influencing factors, such as furcation involvement (FI), bone loss, mobility, endodontic, and prosthetic status, as well as patient-level risk factors.

Conclusion:

Periodontal therapy has shown to achieve predictable results in terms of long-term survival of compromised teeth. This predictability, however, may be diminished when these teeth are affected by other influencing factors, such as furcation involvement (FI), bone loss, mobility, endodontic, and prosthetic status, as well as patient-level risk factors.
Methods:
A mixed public-private payment setting was used throughout the study. Relevant costs were included for the periodontal care visits of patients who had received periodontal therapy between 1982 and 1998 at the Christian-Albrechts-University Kiel, in Germany. The clinical data were extracted from patients’ charts. Patients had to present to the study: (a) patients who had received periodontal therapy once initial treatment, (b) patients who had received periodontal therapy once recall interval. Patients had to present to the study: (a) patients who had received periodontal therapy once initial treatment, (b) patients who had received periodontal therapy once recall interval. Patients had to present to the study: (a) patients who had received periodontal therapy once initial treatment, (b) patients who had received periodontal therapy once recall interval. Patients had to present to the study: (a) patients who had received periodontal therapy once initial treatment, (b) patients who had received periodontal therapy once recall interval.

Results:
Effectiveness was defined as years of tooth retention that were counted from patients’ inclusion to extraction or last observation time (censoring). Event times were censored for patients who were not included in any specific period of observation. Effectiveness was defined as years of tooth retention that were counted from patients’ inclusion to extraction or last observation time (censoring). Event times were censored for patients who were not included in any specific period of observation. Effectiveness was defined as years of tooth retention that were counted from patients’ inclusion to extraction or last observation time (censoring). Event times were censored for patients who were not included in any specific period of observation. Effectiveness was defined as years of tooth retention that were counted from patients’ inclusion to extraction or last observation time (censoring). Event times were censored for patients who were not included in any specific period of observation.

Conclusions:
Statistical analysis of the observational and post-hoc Bonferroni variance (ANOVA) and post-hoc Bonferroni tests performed on the clinical data supported the hypothesis that the cost-effectiveness of periodontal care was affected by the severity of periodontal disease, the severity of bone loss, the severity of tooth mobility, the presence of furcation involvements, and the severity of endodontic involvements. Statistical analysis of the observational and post-hoc Bonferroni variance (ANOVA) and post-hoc Bonferroni tests performed on the clinical data supported the hypothesis that the cost-effectiveness of periodontal care was affected by the severity of periodontal disease, the severity of bone loss, the severity of tooth mobility, the presence of furcation involvements, and the severity of endodontic involvements. Statistical analysis of the observational and post-hoc Bonferroni variance (ANOVA) and post-hoc Bonferroni tests performed on the clinical data supported the hypothesis that the cost-effectiveness of periodontal care was affected by the severity of periodontal disease, the severity of bone loss, the severity of tooth mobility, the presence of furcation involvements, and the severity of endodontic involvements.

Methods:
This is a retrospective cohort study including patients who had received periodontal therapy for moderate to advanced chronic or aggressive periodontitis between 1982 and 1998 at the Christian-Albrechts-University Kiel, in Germany, and who attended regular SPT for ≥ 9 years (3-12 months recall interval). Patients had to present with at least one first or second molar once initial periodontal therapy (T1) was completed.

Costs were calculated based on fee items, according to the German fee structure in the context of a secondary-care setting. A mixed public-private payment setting was included in the analyses, as most patients (86%) were enrolled in public insurance, although not all items (such as SPT) were covered and these were therefore paid for by the patient. Resources and costs were calculated per tooth; in those cases where services were provided for more than one tooth at the same time (e.g. examination, antibiotics), costs were distributed among all teeth present.

Effectiveness was defined as years of tooth retention from patients’ inclusion to extraction or last observation time (censoring).

Rapporteurs: Molina, A. with Sanz, M.

Affiliation: Prepared by a PhD student and clinical instructor at the Master in Periodontology, Faculty of Odontology, Complutense University, Madrid, Spain, under the supervision of the professor and chairman of the Master in Periodontology, Faculty of Odontology, Complutense University, Madrid, Spain.