

# Following the "Platinum Rule"

# Systematic Treatment Planning and Patient Consultation

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Abstract

individualized treatment plan that leads to a desired and long-term
successful result. This plan should incorporate the best scientific evidence
with regard to the patient's problems, the clinical expertise of the dentist,
and the patient's wishes and preferences. However, such a plan by itself
does not lead to implementation of the treatment. It also must be
communicated in a professional way that can help to enhance patient
acceptance. This article outlines a set of systems that the authors use in
daily practice to achieve these goals. The concept is also illustrated with
a clinical case.

A significant challenge in dentistry is the creation of a comprehensive,

Key Words: systematic treatment planning, patient consultation, communication, full-mouth reconstruction

After reading this article, the participant should be able to:

CREDIT

- 1. Understand the value of and implement a systematic treatment-planning protocol.
- 2. Be aware of verbal and non-verbal communication as it relates to treatment planning.
- 3. Better appreciate the patient's role in treatment planning.

The guiding principles for a comprehensive treatment plan are a long-term strategy for dental health and an enhanced level of patient well-being.



### Introduction

Imagine a new patient coming to your office asking for advice. Initial findings show that the case is very complex and challenging. However, you already have an idea of how the case could be resolved. While refining the plan you become more and more convinced it is the ideal treatment for the situation and look forward to a challenging case that will have a very good outcome. During the consultation, you enthusiastically propose the plan and assume the patient will want to begin treatment as soon as possible. However, the patient just looks at you and says "No." Multiple things likely have gone wrong in such a situation.

The guiding principles for a comprehensive treatment plan are a long-term strategy for dental health and an enhanced level of patient well-being.<sup>1</sup> To achieve this, the treatment plan should follow the three basic principles of evidence-based dentistry: incorporation of the best scientific evidence with regard to the patient's problems, the clinical expertise of the dentist, and the patient's wishes and preferences.<sup>2-5</sup>

Unfortunately, a treatment plan by itself does not lead to the implementation of treatment. The plan also must be conveyed in a professional way that can help to enhance patient acceptance. Many dentists have become very time-efficient when it comes to evaluating a patient's oral health and communicating a necessary treatment to the patient.<sup>1</sup> However, a doctor who rushes through these steps is not perceived as being better trained. Rather, the doctor is judged as uncaring, uninvolved, and lacking in expertise.6 Adequate communication with the patient before and during the treatment also correlates with overall patient satisfaction after the completion of treatment.<sup>7</sup> To overcome the obstacles involved, dentists have to implement systems to educate patients on current or future problems and possible treatment options8 Although this requires effort, it also brings benefits. If patient expectations are exceeded and value is created, the dentist will shine in the patient's eyes.<sup>1,8</sup>

## Platinum Rule

Every person has different wishes, desires, needs, preferences, and capabilities. As these characteristics are the result of individual experiences, they may sometimes be incomprehensible to another person. Thus, even though based on the best intentions, dentists plan a treatment in the way they would want to be treated in a given situation. Dentists have to plan treatments following the "platinum rule" in dentistry: "Treat every patient the way *they* want to be treated" (obviously, within the appropriate medical protocols and guidelines). Unfortunately, a treatment plan by itself does not lead to the implementation of treatment.

To achieve this, dentists need information on patient expectations and satisfaction with different treatment modalities. One possible source of information for this is the scientific literature.<sup>9,10</sup>

However, more personal information also must be gathered. During the clinical examination the dentist should formulate open-ended questions to determine a patient's individual motives for seeking treatment and their treatment goals. A 2002 study on communication and patient satisfaction in prosthetic dentistry found that it is important to the treatment outcome that patients be given an opportunity to talk about their dental health.<sup>7</sup> Another interesting finding of this study was that patients undergoing extensive prosthetic rehabilitations are more satisfied with their overall treatment outcome than patients undergoing less-extensive rehabilitations.<sup>7</sup>

### Values that Influence Patient Preferences

According to psychologist Steven Reiss, there are 16 basic desires that motivate a person's actions and define their personality.<sup>11</sup> Individual peculiarities of these desires remain stable over time. While it is not the dentist's goal to acquire complete insight into a patient's personality, these values influence patient preferences with regard to dental treatment. Therefore, the authors created a brief questionnaire that asks for patients' views on four values (Fig 1):

- Decisions: Patients with a low expression of this value are comfortable when guided by their dentist, whereas decisive patients prefer to receive advice and then make their own decisions.
- Curiosity: Curious patients should be provided with detailed background information on their diagnoses and treatment options.
- Order: "Spontaneous" patients may feel overwhelmed by a treatment plan that is very lengthy and entails many appointments. On the other hand, patients who are more "structured" will perceive a dentist who is able to plan a treatment over a long period of time as highly skilled.
- Status: Some patients aspire to be perceived as "important" and are likely to be more driven by esthetic concerns than are unassuming patients.

## **Treatment Planning**

There are numerous sophisticated options available today to help dentists in treatment planning and during patient consultation. Individualized materials outlining clinical findings and the prepared treatment plan show professionalism and demonstrate that the doctor thoroughly planned the individual case. Schematic education materials help patients understand the medical information. The dentist should select the systems that lead to the highest individual benefits.

### **Risk Assessment**

Dr. John Kois developed a comprehensive system for disease diagnosis, the identification of individual risk parameters, treatment planning, and patient communication.<sup>1,12</sup> The first part of this system is a questionnaire

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Figure 1: Questionnaire seeking patient views on four values that affect treatment planning and patient communication.

focused on the patient's dental history and self-perception in four key areas: periodontics, biomechanics, function, and dentofacial esthetics. The answers obtained not only help in the identification of current problems, but also provide insight into how these problems developed over time. The second part of the system is the diagnostic opinion. At this step, the clinical findings are transformed into diagnoses that reveal the necessity of treatment and are the foundation of an objective treatment-planning process. The diagnostic opinion shown in **Figure 2** was modified slightly to better fit the authors' practice.

The two forms not only help the dentist in objective treatment planning and future risk assessment, but also in patient communication. As the patient spends some time reflecting on his/her dental situation, he/she also becomes educated about individual risk factors and possible future problems if no treatment is performed. Through all of this, the dentist is transformed (in the patient's eyes) from being the bearer of bad news to a partner in helping the patient attain improved dental health.<sup>13</sup>

### Systematic Treatment-Planning Process

The authors prepare a brief presentation (Keynote, Apple Inc.; Cupertino, CA) that comprises the wishes and de-

sires the patient expressed during the first appointment, extraoral and intraoralimages, clinical findings, and individual prognoses for the patient's teeth (Figs 3 & 4). These individual tooth prognoses are of paramount importance in the treatment-planning process and for the treatment's long-term success. In general, maintenance of a questionable tooth (along with the associated risk) is acceptable if teeth can be restored individually or a tooth has a high strategic value and implant placement is not possible. On the other hand, if long-duration restorations have to be planned, the risk of failure of the entire restoration should be minimized.<sup>14</sup> Objective criteria for the evaluation of questionable teeth have been developed by Zitzmann and colleagues and are summarized in Table 1.14 In addition to a tooth's prognosis, the patient's individual readiness to accept risk in order to maintain a tooth and the risk assessment in the four diagnostic categories<sup>1,12</sup> must be taken into account in the treatment-planning process. Once the possible abutments have been identified, a broad treatment plan is developed. While an objective treatment-planning process based on solid data is desirable, the application of evidence-based dentistry for many clinical problems is challenging due to a paucity of external clinical evidence. Furthermore, even in cases where high-quality information is available, different clinicians may opt for different treatment strategies.3 This is due to the fact that evidence-based dentistry is also based on the clinician's own expertise and the patient's wishes and expectations.<sup>4,5</sup> Consequently, the broad treatment plan is evaluated for feasibility and a more detailed plan is developed that plans the necessary treatment for each individual tooth (e.g., periodontics, endodontics, periodontal surgery).

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Diagnostic Opinion	Page 1 of 2	Diagnostic Opinion	Page 2 of 2
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**Figure 2:** Diagnostic opinion form (developed by Dr. John Kois) that constitutes the foundation of an objective treatmentplanning process. The form is filled out for the case discussed in this article. (Adapted with permission from Dr. Kois.)



Figure 3: The authors' Keynote presentation.



Figure 4: The presentation is subsequently printed out for the patient consultation.

**Table 1:** Prognosis Assessment of Potential Abutment Tooth or Implant.<sup>14</sup> (PPD: probing pocket depth; BoP: bleeding on probing; PAL: probing attachment level; FI: furcation involvement [degree o to 3]). (*Reprinted from: Zitzmann NU, Krastl G, Hecker H, Walter C, Waltimo T, Weiger R. Strategic considerations in treatment planning: deciding when to treat, extract, or replace a questionable tooth. 2010 Aug;104(2):80-91. With permission from Elsevier.*)

Prognosis Factors	Good	Questionable	Hopeless
Periodontal	PPD ≤ 3mm, BoP -, PAL loss ≤ 25%, DI degree ≤I	residual PPD ≤ 6mm and BoP+, PAL loss of approximately 50%, FI degree II or III, root proximity	insufficient residual attachment
Endodontics	no clinical signs and absence of or decreasing radiolucency	no clinical signs and persisting radiolucency	symptomatic situation and radiolucency, no further treatment feasible
Implants	absence of BoP, suppuration, bone loss	BoP with/without bone loss	mobility
Prosthetic	sufficient residual tooth substance, adequate retention and resistance forms (ideally, 4-mm wall height with 15- to 20-degree convergence angle, 1.5- to 2-mm ferrule)	reduced retention/resistance form (< 3-mm wall height and/or > 25-degree convergence angle)	insufficient residual tooth substance (< 1.5-mm circular ferrule), no crown lengthening or extrusion feasible

Once the treatment-planning process is concluded, the digitally developed treatment plan is prepared and printed out for the ensuing consultation. The reasons for this are multifold. Printed material can be physically placed on the table. This creates a collaborative "workshop" atmosphere in which slides and other materials are easily shared, allowing the patient and the dentist to work on a solution together. If the material is shown on a screen, the patient becomes a passive audience listening to a presentation. After the consultation, printed material can be taken home so the patient can show the proposed treatment to others.

### **Patient Consultation**

When patients do not accept treatment recommendations, it generally is due to a lack of knowledge, time, and money, as well as fear.<sup>15</sup> The consultation should be structured in a way that overcomes these issues and allows the patient to understand why the proposed treatment plan is the correct solution to the patient's individual problems. Furthermore, a systematic approach allows the dentist to become familiar with the sequence and advance his or her individual skills over time.

While patients want to be involved in the treatment-planning process, it should be kept in mind that most patients look for guidance from their dentist about the best treatment option.<sup>8,16-18</sup>

In complex cases, the authors schedule a separate appointment for the patient consultation that takes place in a non-clinical room. However, the same systematic approach may also be utilized in consultations for less complex cases.

### Part One: Treatment Result

"What will I look and feel like when I am done?" Answering this question is the main focus of the first part of the consultation. For this, the patient's current condition is explained with the help of the diagnostic opinion and the slides with the clinical images. Subsequently, possible treatment outcomes are outlined, using the patient's wishes and desires that were put on the first slide of the presentation as a starting point. Too much information at this stage can be confusing and only becomes relevant once a specific treatment goal has been defined.

### Part Two: The Way to the Desired Result

Once a specific treatment goal has been defined, the conversation can move to the next stage (i.e., the transition from the patient's current situation to the desired treatment result). The type of provisional resto-

ration used is explained along with how and when function and esthetics will improve. Furthermore, the patient is reassured that he or she will not be disfigured during the treatment. Possible healing periods due to periodontal, endodontic, and/or surgical treatments are explained and a timeframe for the treatment is given. The patient is asked their preferences with regard to longer or shorter individual appointments and if there are any scheduling restrictions due to work, travel, and personal commitments.

Fear of dental treatment is widespread<sup>19,20</sup> and a "treatment without pain" is the number one wish stated by patients.<sup>21</sup> Even when the patient does not express fear of pain, this issue should be addressed seriously and sensitively during the consultation.

### Part Three: Treatment Costs

While many patients ask about treatment costs at the beginning of the consultation, it is important to keep this item for last. Only after patients are properly informed about the substantial efforts that may be needed to achieve a desired result will they understand the associated costs. Furthermore, the planned treatment may change during the consultation, which will also affect the costs. Based on the dentist's experience, a broad range for the treatment costs should be given in the consultation. If these costs are acceptable to the patient, a detailed cost estimate should be compiled and sent to the patient in a timeframe stated in the consultation. If insurance is involved, the dentist may offer assistance in dealing with the associated paperwork.

At the conclusion of the consultation the dentist should ask the patient if all their questions have been answered and whether he or she has any concerns that might hinder the scheduling of appointments.

### Case Report

### Patient Complaint and History

A 67-year-old female presented to the primary author's office wishing to achieve improved esthetics, especially with regard to her black interdental triangles.

Clinical examination revealed severe chronic periodontitis with multiple infrabony defects. Due to the untreated periodontal disease, the gums had receded over time, which in turn led to increased food impaction and esthetic impairment. The patient had received extensive restorative dental care in the posterior areas about 20 years earlier. These restorations had eventually failed due to carious lesions and root fractures. Apart from pain in the fractured teeth during chewing, the examination did not reveal any functional problems. The patient had an excessive display of the upper anterior teeth and the black interdental triangles were visible during lip movement. Clinical images of the patient, the diagnostic opinion, and the Keynote presentation prepared for the patient consultation are shown in **Figures 2 through 8**.

### Findings

Due to attachment loss and the severe carious lesions, #2, #11, #14, #15, #18, and #19 were determined to be hopeless. Tooth #30 had a root fracture and was also deemed hopeless. Teeth #7 and #8 were assessed as questionable due to the attachment loss. Tooth #12 was rated as questionable due to the possibility of biomechanic problems after the removal



Figure 5: Extraoral image of the patient before treatment.



Figure 6: Clinical situation at the commencement of treatment.

# upper jaw



# lower jaw



Figure 7: Preoperative periodontal findings.



**Figure 8:** Preoperative panoramic radiograph.

of the restoration. Tooth #20 had a restorative margin 3 mm subgingivally on its mesial aspect and a large post; it was rated as questionable. Teeth #29 and #31 were assessed as questionable due to the endodontic treatments and the large posts. The remaining teeth had a good prognosis.

### **Treatment Planning**

Three treatment options were discussed with the patient, as follows:

- 1. Crowns would be incorporated on the remaining teeth in the upper jaw and veneers on the lower anterior teeth to close the black triangles. Hopeless teeth would be replaced with fixed partial dentures (FPDs) and implant-supported crowns.
- 2. Identical to the first option with regard to the restorations, but orthodontics would also be utilized. The upper anterior teeth would be intruded to minimize the risk of devitalization due to the necessary shortening of the teeth.
- 3. Replacement of the hopeless teeth with a removable partial denture.

In all three options the final prosthetic phase would be preceded by at least six months with a longterm provisional restoration to evaluate the prognosis of the questionable teeth. The patient was informed about the possibility of further implant placement to minimize the risk posed by questionable abutment teeth for FPDs.

After considering the potential outcomes with regard to function and esthetics, the patient decided on the first option. Orthodontics was ruled out due to the prolonged treatment time. The risk posed by the questionable teeth as abutments for FPDs was acceptable to the patient as it meant less treatment.

### Treatment

Prior to commencing treatment, the final outcome was planned digitally and with a subsequent wax-up. The length of the upper anterior teeth was planned based upon a width-length ratio of 75% (Figs 9 & 10). This value represented a compromise between ideal tooth proportions and the necessity of shortening the vital teeth. The goal of the first treatment phase was to enhance the patient's oral hygiene. The hopeless teeth were extracted, periodontal pretreatment performed, and long-term provisional restorations incorporated (Fig 11). After a healing period of eight weeks the prospective implant sites were evaluated with cone beam computed tomography (CBCT) and implants were placed using a surgical template (Figs 12 & 13). Bone augmentation was performed in the upper posterior implant sites with an internal sinus lift.

The patient was reevaluated every eight weeks over the following months. Unfortunately, the periodon-



Figure 9: Virtual facebow transfer.



**Figure 10:** The upper central incisors were planned with a width-length ratio of 75%.



**Figure 11:** Clinical situation after removal of the hopeless teeth and provisional preparation of the abutment teeth.

# TOOTH NO. 3 NOBEL ACTIVE RP 4.3 x 11.5mm



TOOTH NO. 15 NOBEL ACTIVE RP 4.3 x 11.5mm



Figure 12: CBCT evaluation of the prospective implant sites in the upper jaw.



Figure 13: Implant placement at #14 and #15.

During the clinical examination the dentist should formulate open-ended questions to determine a patient's individual motives for seeking treatment and their treatment goals. tal situation at #20 worsened during the course of treatment and the patient started to develop pain in this tooth. To ensure a long-lasting positive outcome the tooth was replaced by an implant placed at the time of extraction. Six months after placement of the first implants, the abutment teeth and implants were thoroughly reevaluated and the prosthetic treatment commenced (Figs 14 & 15). The crowns and FPDs were fabricated using porcelain fused to metal. This technique was selected due to its good long-term results and the possibility of having small connectors between the elements of the FPD in the upper anterior area. The implants were restored with porcelain-fusedto-metal crowns on individual zirconia abutments. The restorations were connected to minimize the risk of problems with the prosthetic components. The veneers on the lower anterior teeth were fabricated using a lithium disilicate ceramic. Figures 16 through 21 show the final treatment outcome.

### Summary

The creation of a comprehensive, individual treatment plan that solves the patient's problems; takes individual wishes, desires, and possibilities as well as sophisticated and proven treatment modalities into account; and leads to a desired result is a significant challenge in dentistry. However, if this goal is achieved, the patient will have a successful, long-lasting solution. The dentist, in turn, will feel great professional satisfaction.

This article has outlined a set of systems the authors use in their daily practice to achieve this goal. However, as the processes of treatment planning and patient consultation are highly individual, the presented systems should only be taken as a starting point for readers to work out their own systems. The authors invite readers to share their ideas via e-mail.

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**Figure 14:** Clinical situation after the preparation of the lower anterior teeth.



Figure 15: Clinical situation prior to cementation.



Figure 16: Intraoral view of the result.



Figure 17: Occlusal view of the final restorations in the upper jaw.



Figure 18: Occlusal view of the final restorations in the lower jaw.

# lower jaw



# upper jaw



Figure 19: Periodontal findings at the conclusion of treatment.



Figure 20: Panoramic radiograph at the conclusion of treatment.



**Figure 21:** Extraoral view after the conclusion of treatment.

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The dentist should select the systems that lead to the highest individual benefits.



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# (CE) Exercise No. jCD19

# Esthetic/Cosmetic Dentistry

# AGD Subject Code: 610

The 10 multiple-choice questions for this Continuing Education (CE) self-instruction exam are based on the article, *"Following the 'Platinum Rule,"* by Dr. Sebastian D. Horvath and Dr. Julia K. Seelig. This article appears on pages xx-xxx.

The examination is free of charge and available to AACD members only. AACD members must log onto www.aacd.com to take the exam. Note that only Questions 1 through 5 appear in the printed and digital versions of the *jCD*; they are for readers' information only. The complete, official self-instruction exam is available online only—completed exams submitted any other way will not be accepted or processed. A current web browser is necessary to complete the exam; no special software is needed. The AACD is a recognized credit provider for the Academy of General Dentistry, American Dental Association, and National Association of Dental Laboratories. For any questions regarding this self-instruction exam, call the AACD at 800.543.9220 or 608.222.8583.

- 1. According to this article, the guiding principle for a comprehensive treatment plan is to
- a. develop a long-term strategy for dental health, along with an enhanced level of patient awareness.
- b. formulate a budget-conscious plan that is designed to accommodate the patient's finances and insurance benefits.
- c. gain patient compliance by utilizing a treatment plan with quickly achievable goals.
- d. recognize and utilize the dentist's strengths and preferences to achieve the goal of long-term patient dental health.
- 2. What are the three basic principles of evidence-based treatment planning?
- a. Scientific evidence, clinical expertise, and creative financing.
- b. The patient's wishes and preferences, scientific evidence, and clinical expertise.
- c. Clinical expertise, creative financing, and the patient's wishes and preferences.
- d. Creative financing, the patient's wishes and preferences, and scientific evidence.
- 3. According to the authors,
- a. a well-executed treatment plan by itself should lead to the execution of the proposed treatment.
- b. a proposed treatment plan can best be communicated via email.
- c. a doctor's presentation of the treatment plan in a time-efficient manner gives credibility and the perception that the doctor is confident and well-trained.
- d. adequate communication before and during the treatment correlates positively with patient satisfaction.

- 4. The "Platinum Rule of Dentistry" as mentioned in this article is: Treat every person
- a. in the same manner, using the same philosophy and materials, leading to uniformity of success with your treatment.
- b. in a manner they desire, even if their wishes are detrimental to the long-term success of their treatment.
- c. in the manner they want to be treated, as long as the treatment is within sound medical boundaries.
- d. by exercising your judgment as if they were family, implying your preferences in regard to their oral health.
- 5. A study on communication and patient satisfaction in prosthetic dentistry discovered that
- a. it is important for patients to be given an opportunity to talk about their oral health.
- b. patients with simpler prosthetic rehabilitations were more likely to be highly satisfied with their treatment than those with extensive treatment plans.
- c. the desires that motivate human actions are very volatile, ever evolving over time.
- d. the more a dentist can gain complete insight into a patient's personality, the better satisfied with his or her treatment that person will be.

To see and take the complete exam, log onto www.aacd.com/jcdce. Click "Dental Professionals", "Journal of Cosmetic Dentistry", "jCD CE", and log in.