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Thematic Article

Implant Maintenance and Failure Tracking Form

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Abstract

Dental implant failure is multifactorial, and it can happen either before or after loading with the prosthesis. Tracking the most possible cause of failure is usually difficult unless detailed information was available. An implant tracking form and a detailed list, that record pertinent information would be valuable for any future treating dentists is described in this article. The form is to be filled throughout the stages of implant treatment to ease both the maintenance process and the analysis in case of failure. This form can be used as well throughout any course, or comprehensive implant training program to be able to track the performance and have controlled quality supervision.

Keywords: *Dental Implant; Failure Analysis; Treatment Record*

Introduction

Dental implants are the aesthetic and functional alternative for tooth replacement. Despite the high success rate shown by longitudinal studies, failures do occur, even in patients who present appropriate clinical conditions [1]. The primary function of a dental implant is to act as an abutment for a prosthetic device, similar to a natural tooth root and crown. Any success criteria, therefore, must include first and foremost support of a functional prosthesis [2].

The term implant success may be used to describe ideal clinical conditions. It should include a time period of at least 12 months for implants serving as prosthetic abutments. The term early implant success is suggested for a span of 1 to 3 years, intermediate implant success for 3 to 7 years, and long-term success for more than 7 years. The implant success rate should also include the associated prosthetic survival rate in a clinical report [2]. Implant failures can be categorized as early or late. Early failures occur before osseointegration takes place while late failures occur after prosthetic rehabilitation [3].

There have been publications regarding the radiographic identification of implants [4,5] and also regarding the use of implant consultation forms to document pre-surgical and surgical information [6]; however, there have not been publications identifying the pertinent dental implant information that should be recorded in a patient's treatment record for future use. A specific form, and a detailed list, that records pertinent information would be valuable for any future treating dentists. A copy of this form can be given to patients for their records, as well as be retained in the practitioner's patient treatment file.

The Form

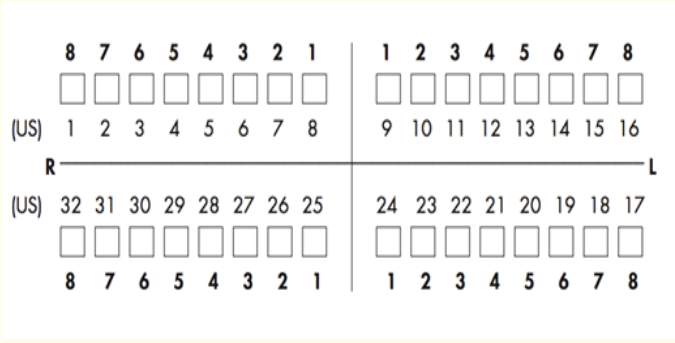
Patient Information

Patient name		
Date of birth		
File Number		
Gender	Male	Female
Medical History		
History of Habits		
Allergy		

Implant Information

Company		
Serial Number		
Implant dimensions	Length	Diameter
Implant placed By		
Placement Date		

Implant Site



Surgery Information

Placement Method	Manually driven		Handpiece driven	
Bone quality (type)	I	II	III	IV
Implant Placement Level	Crestal		Sub-Crsetal	
Placement time:	Immediate placement Immediate delayed Delayed placement			
Immediate placement condition:	Keratinized mucosa Local chronic infection Bone loss in adjacent teeth			
Soft tissue biotype:	Thick Thin			
Implant Placement Protocol:	Single Stage		Two Stages	
Implant Insertion Torque:	…… N-cm			
Was primary stability achieved?	Yes		No	
Ridge augmentation:	NA Particulate Block Titanium mesh Splitting Others :……			
GTR membrane used:	NA Resorbable Non-Resorbable Material Used:……			
Material of bone graft used:	NA Autograft Allograft Xenograft Other Material Used:……			
Sinus floor elevation	Internal with implant placement	Internal without implant placement		
	External with implant placement	External without implant placement		
Soft tissue procedures:	Free gingival graft Connective tissue graft Frenectomy Sulcus deepening Soft tissue tenting Others ……			
In case of single stage and placement of the healing cap	Size Height Date			

Suture Removal Stage Information

Sutures removed by:	
Suture removal date	
At the time of suture removal:	Premature exposure of the cover screw Post operative infection GTR part exposure Maxillary sinus complications Implant mobility Parasthesia Lost cover screw/healing cap Others…

Second Stage Surgery Information

Second stage performed by:				
Second stage date:				
Soft tissue augmentation needed	Free gingival graft Connective tissue graft			
Uncovery technique	Flapless With flap technique			
Assessment of hygiene	Excellent	Good	Fair	Poor
ISQ value	……. N-cm			
Healing cap	Size		Height	
Were any of the following conditions involved during second stage?	Periodontal disease Infection in the implant site Exposure of implant threads Implant shadow through the mucosa Others: ……..			

Prosthetic Steps Information

Prosthodontist:			
Type of planned prosthesis?	Crown FPD Over denture	Full (upper) Full (lower)	
Type of opposing arch:	Natural dentition	Prosthesis	
Type of opposing prosthesis:	Removable Denture: Complete Partial	Fixed PD	
Type of material of opposing prosthesis:	PFM Full Ceramic	Hybrid Material ……..	
Date of impression making		Impression technique	Open tray Closed tray
Date of recording jaw relation		Shade	
Abutment type			
Abutment material			
Means of retention	Screw retained: access hole closed by: Cement retained: cementation material: Attachment: bar/ball/locator		
Date temporary abutment installed		Date temporary restoration installed	
Date final abutment installed		Date final restoration installed	
Torque Control Device used	No	Yes – Torque Applied…….N-cm	
Information about fit:	Passive Non passive Other: ……		

Recall Information

Recall done by				
Recall date				
Assessment of hygiene	Excellent	Good	Fair	Poor
Bone loss	0 - 2 mm 2 - 4 mm 4 mm (less than half of the implant body) More than half of the implant body			
Pain score	No pain or tenderness upon function Pain on function			
Mobility	Mobile Non mobile			
Exudate discharge	No exudate history Exudate present			
Soft tissue condition	Stable Inflammation (mild/moderate/severe) Shadow of the implant Exposure of threads Black triangles Bleeding on probing Presence of attached mucosa			
Screw access hole restoration material	Intact	Partial Wear	Complete Wear	
Occlusion and Stomtaognathic System	Heavy contact Over eruption of opposing Loss of opposing teeth Wear of opposing teeth Wear facets Inability to grind food Evidence of parafunctional habits Pain during mastication Discomfort TMD “clicking” “pain” “deviation” Headache Shoulder pain Muscle spasm Others:…….			
Mobility of the prosthesis	Screw loosening Screw fracture Abutment fracture Prosthesis fracture Loss of cementation Relining required for overdenture Change of retentive means required for overdenture Others:……..			
Ceramic	Chipping of ceramic Exposure of metal/zirconia core Shade mismatch Others:…..			
Acrylic	Wear of acrylic overdenture teeth Broken flanges Exposure of attachment Others:…….			
Patient comments				

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