ASSOCIATION OF DENTAL IMPLANTOLOGY

ADI DENTAL IMPLANT PLACEMENT **GUIDELINES**

Guidelines for dentists, from initial consultation to placement

WELCOME

Welcome to the ADI Dental Implant Placement Guidelines, the information in these guidelines is designed to complement your own protocols and can be built upon to suit individual practices. It is not prescriptive, rather a collection of recommendations to promote best practice.

CONTENTS

KEY

PINK Clinical data to be kept in the patient's notes and updated when necessary
GREEN Advisory notes for the various clinical stages
PURPLE General information

MEDICAL HISTORY QUESTIONNAIRE TEMPLATE

Title: Name:

Date of Birth: Sex: Occupation:

Address:

Tel: Home: Work:

Doctor's Name & Address:

Tel:

In the following questions answer **YES** or **NO**, whichever applies. Your answers are for our records only, and will be considered **CONFIDENTIAL**. This questionnaire will enable us to take the appropriate steps to safeguard your health. Please fill in what you can. This will then form the basis for discussion with your dentist.

Are you:	**Yes/No**	**Details**
Attending or receiving treatment from a Doctor, Hospital or Specialist?		
Taking any medicines from your doctor (pills, creams, inhalers etc.)?		
Taking or have taken any steroids within the last two years?		
Allergic to any medicines, food or materials?		
Have you:		
Had rhuematic fever, or chorea (St Vitus Dance)?		
Had jaundice, liver, kidney disease or hepatitis?		
Any heart problems (murmur, angina, blood pressure, heart attack etc.)?		
Had any blood tests or inoculations?		
Have you ever had your blood refused by the Blood Transfusion Service?		
Ever had a bad reaction to a general or a local anaesthetic?		
Had a joint replacement?		
Been admitted to hospital (if YES, what for and when)?		
Do you:		
Have arthritis?		
Have a Pacemaker, or have you had any form of heart surgery?		
Suffer from hayfever, eczema or any other allergy?		
Suffer from bronchitis, asthma or other chest conditions?		
Have fainting attacks, giddiness, blackouts or epilepsy?		
Have diabetes, or does anyone in your family?		
Bruise easily, or have you or your family excessive bleeding problems?		
Carry a warning card?		
Ever get cold sores?		
Smoke, if so how many a day?		

Are there any other points concerning your health that you think your dentist should know?

Completed by – Self/Parent/Guardian.
To be re-signed each year.

Signature:

Date:

Have there been any changes in your health, medicines, injections, or tablets since your last course of treatment?

DENTAL HISTORY QUESTIONNAIRE TEMPLATE FOR PATIENTS WITH FULL DENTURES

Have you:

Read and understood the patient information? Yes/No

Been referred? Yes/No

If yes, by whom?

Name: .....

Address: .....

.....

.....

Tel: .....

What reasons do you have for seeking treatment?

Please tick all that apply

To improve:

- Function (eating) ☐
- Comfort ☐
- Appearance ☐
- Psychological satisfaction ☐

Do you...

Have upper dentures? Yes/No

Have lower dentures? Yes/No

Use dentures for eating? Yes/No

Use dentures for aesthetic purposes only? Yes/No

You and your dentures

Are the dentures comfortable and stable? Yes/No

Do you use denture fixative? Yes/No

Do your dentures make you nauseous? Yes/No

Do you like the look of your dentures? Yes/No

How many dentures have you had? .....

How many years have you worn dentures? .....

Have your dentures ever broken? Yes/No

Eating, speaking, professional and social life

Are you satisfied with your ability to eat? Yes/No

Do your dentures/bridges affect your speech? Yes/No

Do your dentures/bridges affect your facial appearance? Yes/No

Do you avoid contact with people socially or professionally because of your dentures or bridges? Yes/No

When did you lose your teeth?

Please tick one

- Less than 3 months ago ☐
- 3 months to one year ago ☐
- 1 – 5 years ago ☐
- 5 or more years ago ☐

Why did you lose your natural teeth?

Please tick all that apply

Dental decay ☐

Gum disease ☐

Neglect on your part ☐

Poor dentistry ☐

Loosening teeth ☐

Broken fillings ☐

Broken bridges ☐

Abscesses ☐

Accidents ☐

Extractions ☐

Knocked out ☐

Congenitally absent ☐

Would you look after your teeth more carefully if you had them back? Yes/No

Appearance of any remaining natural teeth and dentures

Are you happy with the appearance of your teeth? Yes/No

Are you self-conscious about your teeth when you smile? Yes/No

Do you wish your teeth were a different shape? Yes/No

When you laugh and smile do you show:

Please tick one

All of your teeth and gums? ☐

Your teeth only? ☐

Some teeth? ☐

Long-term success and treatment alternatives

Do you understand that the degree of success (prognosis) varies in each case? Yes/No

Are you aware of alternatives to implant treatment? Yes/No

Are you aware of the consequences of not having implant treatment? Yes/No

Are you aware of any risks involved in implant treatment? Yes/No

The cost of treatment relates to the type of treatment:

Please tick one

Would you wish to:

- Try another denture? ☐
- Have a removable denture supported by implants? ☐
- Have fixed bridgework supported by implants as the only alternative? ☐

If you are a borderline case for dental implants:

Please tick one

Would you accept an increased risk of failure and/or complications in order to have implants placed and restored? ☐

Would you accept additional procedures to make implant treatment possible? ☐

Would you prefer not to have treatment at all? ☐

Would you prefer to budget for:

Please tick one

Treatment to be realised in the minimum time? ☐

Treatment to be extended over a longer period of time to reduce immediate expenditure? ☐

Teeth clenching or grinding habits, jaw joint pain

Do your jaws or teeth ache when you awake in the morning? Yes/No

Have your jaws ever dislocated when you open your mouth? Yes/No

Do you clench or grind your teeth? Yes/No

Do you have headaches? Yes/No

Do you have pain or clicking in jaw joints or ear? Yes/No

Have you been made aware of clenching or grinding your teeth at night? Yes/No

Did you used to constantly break fillings or teeth? Yes/No

What expectations do you have after implant treatment?

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Do you understand that implants require maintenance just like teeth? Yes/No

DENTAL HISTORY QUESTIONNAIRE TEMPLATE FOR PATIENTS WITH FAILED BRIDGES OR LARGE GAPS

Have you:

Read and understood the patient information? Yes/No

Been referred? Yes/No

If yes, by whom?

Name: .....

Address: .....

.....

.....

Tel: .....

What reasons do you have for seeking treatment? Please tick all that apply

To improve:

- Function (eating) ☐
- Comfort ☐
- Appearance ☐
- Psychological satisfaction ☐

Do you...

Have upper full/partial dentures? Yes/No

Have lower full/partial dentures? Yes/No

Use dentures for eating? Yes/No

Use dentures for aesthetic purposes only? Yes/No

You and your dentures

Are the dentures comfortable and stable? Yes/No

Do you use denture fixative? Yes/No

Do your dentures make you nauseous? Yes/No

Do you like the look of your dentures? Yes/No

How many dentures have you had? .....

How many years have you worn dentures? .....

Have your dentures ever broken? Yes/No

Eating, speaking, professional and social life

Are you satisfied with your ability to eat? Yes/No

Do your dentures/bridges affect your speech? Yes/No

Do your dentures/bridges affect your facial appearance? Yes/No

Do you avoid contact with people socially or professionally because of your dentures or bridges? Yes/No

When did you lose your teeth?

Please tick one

- Less than 3 months ago ☐
- 3 months to one year ago ☐
- 1 – 5 years ago ☐
- 5 or more years ago ☐

Why did you lose your natural teeth?

Please tick all that apply

Dental decay ☐

Gum disease ☐

Neglect on your part ☐

Poor dentistry ☐

Loosening teeth ☐

Broken fillings ☐

Broken bridges ☐

Abscesses ☐

Accidents ☐

Extractions ☐

Knocked out ☐

Congenitally absent ☐

Would you look after your teeth more carefully if you had them back? Yes/No

Appearance of any remaining natural teeth and dentures

Are you happy with the appearance of your teeth? Yes/No

Are you self-conscious about your teeth when you smile? Yes/No

Do you wish your teeth were a different shape? Yes/No

When you laugh and smile do you show:

Please tick one

All of your teeth and gums? ☐

Your teeth only? ☐

Some teeth? ☐

Long-term success and treatment alternatives

Do you understand that the degree of success (prognosis) varies in each case? Yes/No

Are you aware of alternatives to implant treatment? Yes/No

Are you aware of the consequences of not having implant treatment? Yes/No

Are you aware of any risks involved in implant treatment? Yes/No

The cost of treatment relates to the type of treatment:

Please tick one

Would you wish to:

- Try another denture? ☐
- Have a removable denture supported by implants? ☐
- Have fixed bridgework supported by implants as the only alternative? ☐

If you are a borderline case for dental implants:

Please tick one

Would you accept an increased risk of failure and/or complications in order to have implants placed and restored? ☐

Would you accept additional procedures to make implant treatment possible? ☐

Would you prefer not to have treatment at all? ☐

Would you prefer to budget for:

Please tick one

Treatment to be realised in the minimum time? ☐

Treatment to be extended over a longer period of time to reduce immediate expenditure? ☐

Teeth clenching or grinding habits, jaw joint pain

Do your jaws or teeth ache when you awake in the morning? Yes/No

Have your jaws ever dislocated when you open your mouth? Yes/No

Do you clench or grind your teeth? Yes/No

Do you have headaches? Yes/No

Do you have pain or clicking in jaw joints or ear? Yes/No

Have you been made aware of clenching or grinding your teeth at night? Yes/No

Did you used to constantly break fillings or teeth? Yes/No

What expectations do you have after implant treatment?

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Do you understand that implants require maintenance just like teeth? Yes/No

DENTAL HISTORY QUESTIONNAIRE TEMPLATE FOR PATIENTS WITH MISSING SINGLE TEETH

Have you:

Read and understood the patient information? Yes/No

Been referred? Yes/No

If yes, by whom?

Name:

Address:

Tel:

What reasons do you have for seeking treatment? Please tick all that apply

To improve:

- Function (eating) ☐
- Comfort ☐
- Appearance ☐
- Psychological satisfaction ☐

Do you have a denture? Yes/No

Do you...

Use dentures for eating? Yes/No

Use dentures for aesthetic purposes only? Yes/No

You and your dentures

Are the dentures comfortable and stable? Yes/No

Do you use denture fixative? Yes/No

Do your dentures make you nauseous? Yes/No

Do you like the look of your dentures? Yes/No

How many dentures have you had? .....

How many years have you worn dentures? .....

Have your dentures ever broken? Yes/No

Do you...

Have a bridge? Yes/No

Use the bridge for eating? Yes/No

Use the bridge for aesthetic purposes only? Yes/No

You and your bridge

Is the bridge comfortable and stable? Yes/No

Has your bridge ever broken? Yes/No

Eating, speaking, professional and social life

Are you satisfied with your ability to eat? Yes/No

Do your dentures/bridges affect your speech? Yes/No

Do your dentures/bridges affect your facial appearance? Yes/No

Do you avoid contact with people socially or professionally because of your dentures or bridges? Yes/No

When did you lose your teeth?

Please tick one

- Less than 3 months ago ☐
- 3 months to one year ago ☐
- 1 – 5 years ago ☐
- 5 or more years ago ☐

Why did you lose your natural teeth?

Please tick all that apply

Dental decay ☐

Gum disease ☐

Neglect on your part ☐

Poor dentistry ☐

Loosening teeth ☐

Broken fillings ☐

Broken bridges ☐

Abscesses ☐

Accidents ☐

Extractions ☐

Knocked out ☐

Congenitally absent ☐

Would you look after your teeth more carefully if you had them back? Yes/No

Appearance of any remaining natural teeth and dentures

Are you happy with the appearance of your teeth? Yes/No

Are you self-conscious about your teeth when you smile? Yes/No

Do you wish your teeth were a different shape? Yes/No

When you laugh and smile do you show:

Please tick one

All of your teeth and gums? ☐

Your teeth only? ☐

Some teeth? ☐

Long-term success and treatment alternatives

Do you understand that the degree of success (prognosis) varies in each case? Yes/No

Are you aware of alternatives to implant treatment? Yes/No

Are you aware of the consequences of not having implant treatment? Yes/No

Are you aware of any risks involved in implant treatment? Yes/No

The cost of treatment relates to the type of treatment:

Please tick one

Would you wish to:

- Try another denture? ☐
- Have a removable denture supported by implants? ☐
- Have fixed bridgework supported by implants as the only alternative? ☐

If you are a borderline case for dental implants:

Please tick one

Would you accept an increased risk of failure and/or complications in order to have implants placed and restored? ☐

Would you accept additional procedures to make implant treatment possible? ☐

Would you prefer not to have treatment at all? ☐

Would you prefer to budget for:

Please tick one

Treatment to be realised in the minimum time? ☐

Treatment to be extended over a longer period of time to reduce immediate expenditure? ☐

Teeth clenching or grinding habits, jaw joint pain

Do your jaws or teeth ache when you awake in the morning? Yes/No

Have your jaws ever dislocated when you open your mouth? Yes/No

Do you clench or grind your teeth? Yes/No

Do you have headaches? Yes/No

Do you have pain or clicking in jaw joints or ear? Yes/No

Have you been made aware of clenching or grinding your teeth at night? Yes/No

Did you used to constantly break fillings or teeth? Yes/No

What expectations do you have after implant treatment?

.....

.....

.....

Do you understand that implants require maintenance just like teeth? Yes/No

THE FIRST VISIT

THE RIGHT INFORMATION AT THE RIGHT TIME

Collecting information

It is not uncommon practice to send patients medical and dental questionnaires prior to their first consultation; however, it is a recommendation of the two major defence societies in the UK that patients are not supplied with general information about dental implants that could in any way mislead them about treatment possibilities. Furthermore, the defence societies consider it appropriate to provide only information that is relevant to the particular clinical situation and if literature covers a variety of treatment strategies make it abundantly clear which strategy is relevant to the patient.

Ensure the information is accurate

Even though the medical and dental history questionnaires may not have been completed in your presence, it is important that you (and not a member of staff) as the potential provider of implant treatment re-check all details with the patient. You should be aware also of the possibility that with postal questionnaires patients have more time to choose their response and that this could adversely affect their validity. If there are any elements of doubt you should always seek further professional corroborative information.

Although it may take longer, it is recommended that these questionnaires be completed in your presence.

- Evaluate **Medical** Questionnaire and highlight problems
- Evaluate **Dental** Questionnaire to obtain an impression of the patient's attitude to dental implants
- Show patient dental implant video, photographs or animations

THE PATIENT'S NEEDS

The patient's express requirements

Evaluate the patient's stated needs in respect of the following:

- **Functional** requirements
- **Comfort** (problems in the past)
- **Aesthetics** (problems with smiling and talking or self-confidence, aesthetic desires)
- **Psychological** (cannot stand the idea of dentures or anything moveable)

These discussions should give rise to an understanding of **the patient's express requirements**.

- Obtain statements from the patient in their own words that indicate exactly **what they require** and make an accurate record of this information.

Pros and cons of dental implants

Discuss **pros and cons** regarding different treatment options including implants.

Show clinical cases of similar treatment

The patient should be made aware of the **length of time** various treatment strategies will require and understand the **different stages** involved.

THE PATIENT'S RESPONSIBILITIES

The patient's duty of care

The patient should be made **aware of his or her responsibilities** in maintaining the implants/teeth that are provided. Inform the patient of the **reliability of the treatment**, i.e. documentation, progress reports etc.

How long will it take?

Give the patient an idea about the **time commitment** involved in a routine case.

How much will it cost?

The decision for a patient to proceed with dental implant treatment is a very important and personal one. It will require a degree of commitment in terms of both time and finance. Patients who have completed treatment have generally been very pleased with the final result and considered it well worthwhile.

Patients should be made aware from the outset regarding terms of payment, e.g. payments requested prior to each stage of treatment – crowns or bridges being paid for at the initial preparation stage in order that the clinic has funds to cover all component and laboratory costs incurred as well as professional fees.

Habits which might affect treatment success

Discuss any **habits** the patient might have which might interfere with implant placement:
SMOKING – ALCOHOL CONSUMPTION – BRUXISM

FURTHER RADIOGRAPHS

Special diagnostic tests

Should the patient wish to go ahead then take an X-ray/X-rays and proceed with the physical examination of the patient using the proformas provided.

If routine radiography indicates that **further information** is needed, tell the patient that a **CT/CBCT scan** will be necessary, confirm the cost of this procedure and if appropriate instruct the laboratory to make a scanning guide. Ensure that any radiographs or scans are adequately reported in line with current guidelines.

When the patient leaves give him/her the implant information sheets.

ADDITIONAL MEDICAL INFORMATION

Contact with doctor or other specialists

With the patient's consent send letters to the **General Medical Practitioner** and/or **specialist** should there be anything in the Medical Questionnaire that needs further examination.

Further medical assessment may be necessary if a satisfactory assessment has not been received or the patient does not have a GMP.

Osteoporosis

For post-menopausal females an **osteoporosis** evaluation may be advisable. In addition, there is the likelihood that such patients may be receiving Bisphosphonate Therapy, please see the related paper in the members' area of the ADI website.

Medico-legal

Various **correspondence** may have to be entered into in cases of insurance claims or other medico-legal situations.

INITIAL CONSULTATION AND CLINICAL EXAMINATION

This section is included as an addition to your routine clinical recordings of each patient's restorative and periodontal status and is presented with obvious bias towards those factors that are pertinent to the provision of dental implants.

Name: Date:

EXTRA-ORAL EXAMINATION

Facial form
Square/tapering/ovoid

Profile
Prognathic/ortho/retro

Skeletal class
I/II/III

Lipline during smile and expressive movements
High/medium/low

Lips
Full/average/collapsed

Prosthetic requirements
Teeth and gingivae/lip support

Muscle tenderness
Extra-oral/Intra-oral

Lymph glands
Normal/enlarged

TMJ FUNCTION

Left
Pain/crepitus/click

Right
Pain/crepitus/click

Maximum opening
mm

Lateral movements
Right mm
Left mm

Deviation
Opening mm
Closed mm

Path of opening and closure:

INTRA-ORAL EXAMINATION

Contact teeth
Left
Right

Angles classification
Class 1 / 2 div 1, 2 div 2 / 3
Crossbite

Kennedy classification
Class I / II / III

Occlusion
Premature contacts/Interferences

Non-working side contacts

Evidence of bruxism

Excursions
Canine/anterior guidance

Group function

Anterior/posterior open bite

Sulci
Deep/shallow

Attached gingivae
Abundant/limited

Thick fibrous/thin/scalloped

Muscle attachments
High/low

Ridge conformation
Abundant/limited

Palatal vault
High/average/low

Gingival assessment
Healthy/limited periodontal disease

Advanced periodontal disease

Oral hygiene
Good/average/poor

General restorative condition
Good/average/poor

Accessibility for handpiece
Anterior mm
Posterior mm

Additional notes

RADIOGRAPHY

Radiographs are taken for a number of reasons. Every radiograph must be clinically justified, that is, the continued management of the case depends upon radiographic findings and the relevant information cannot be defined by any other means. The safety of our patients is paramount: our concern must be for their general welfare and not for implant placement objectives only. Our aim should be to use radiographs to achieve maximum clinical information while delivering minimum radiation.

"No practice involving exposures to radiation should be adopted unless it produces sufficient benefit to the individual to offset the radiation detriment it causes."

(ICRP, 1991)[1]

RADIOGRAPHY AND DENTAL IMPLANTS IN ROUTINE CLINICAL PRACTICE

Appropriate radiographs only

The patient must be examined physically prior to the taking of any radiographs to ensure that only the appropriate views are requested. This will avoid the unnecessary exposure that may occur if routine radiographs are automatically taken for a patient prior to the clinical examination.

Follow-up radiographs

After initial radiographs it may be appropriate to take further films to assess the effect of any pre-implant treatment while the patient is waiting for definitive treatment: e.g. to assess the healing of periodontal disease, periapical disease or untreated dental caries. It is best to delay the taking of full X-rays until the commencement of the definitive implant placement phase.

Availability of previous radiographs

Where previous radiographs are available, further film should only be taken if those earlier views no longer supply sufficient information for the continued clinical management of the patient.

If the referring dentist has taken X-rays they should be requested to obviate the necessity to repeat them. They may be copied and the originals returned to the referring dentist.

Confirmation of treatment objectives

At the end of the definitive treatment radiographs should be taken to confirm that the treatment objectives have been achieved.

[1] ICRP, 1991. 1990 Recommendations of the International Commission on Radiological Protection. ICRP Publication 60. Ann. ICRP 21 (1-3).

FOLLOW-UP X-RAYS

Are routine annual radiographs really necessary?

In view of the overwhelming evidence for stability of integrated implants over a considerable period of years, the desirability of routine annual X-rays is hard to justify. Moreover, the presence of failing dental implants is usually manifested through signs or symptoms evident to either the patient or to the monitoring dentists. On these grounds radiographic examination should normally only follow as a further investigation for areas that have demonstrated new pathology.

Detecting late implant failures

On the other hand there are a minority of dental implants that lose osseointegration slowly and without symptoms over a period of time. It is not sensible or desirable that such occult loss of integration should be allowed to proceed undetected. If this is suspected an annual radiograph for 2 or 3 years following the termination of definitive treatment may be considered appropriate.

Radiographs should be taken for clinical, not medico-legal purposes

It is unethical to take radiographs for medico-legal or administrative reasons alone. In particular, taking post-treatment X-rays solely for medico-legal purposes is not justified unless there is a clinically observed reason.

It has been stated that "...if as a result of careful clinical examination you decide that an X-ray is not necessary for the future management of the patient, your decision is unlikely to be challenged on medico-legal grounds..." (Royal College of Radiologists, 2007).[1]

Keep ALL radiographs for as long as possible

Radiographs are a diagnostic aid that form part of a patient's treatment records and remain the property of the practitioner. It is therefore wise to retain all clinical and radiographic records indefinitely since the patient may become aware of the problem many years after leaving the practice.

GOOD RADIOGRAPHIC RECORDS ARE OFTEN CRITICAL IN REFUTING ALLEGATIONS OF NEGLIGENCE.

Defence may prove impossible if:

Importance of radiographic records

- Radiographs were not taken when there were reasonable clinical grounds for obtaining additional information in this manner
- Radiographs were taken that have been subsequently lost
- Radiographs have been taken which are of such poor quality so as to be of limited clinical use
- All radiographs should be prescribed and taken in accordance with current guidance such as the Ionising Radiation (Medical Exposure) Regulations

[1] Royal College of Radiologists, 2007. Making the best use of clinical radiology services: referral guidelines. 6th Edition

WHO OWNS THE RADIOGRAPHIC RECORDS?

Ownership of radiographic records

Even when dental treatment is undertaken by private contract, radiographs such as the CT/CBCT scan are the property of the dentist/surgeon. It is a requirement that the dentist/surgeon will retain these records as part of his/her clinical examination in conditions of correct storage. The patient is at all times entitled to a copy of these records and should be advised in advance of any associated costs.

If, as may be the case, no treatment except examination and diagnosis has been provided, it is perfectly acceptable to hand over the patient's radiographic records so that they may be used in the future and avoid unnecessary repetition.

CHECKLIST OF DIAGNOSTIC INFORMATION FROM RADIOGRAPHS OR CT/CBCT SCANS

Vital anatomy, pathology

The presence or absence of:

- Teeth
- Extent of dental disease
- Orofacial disease
- Any developmental anomalies
- Quantity, distribution and density of alveolar bone

Vital anatomy:

- Sinus and nasal cavities
- Inferior alveolar nerve
- Adjacent roots

Post-operative evaluation

To confirm that the intended implant placement and associated surgery has not violated any surgical criteria.

POINTS TO DISCUSS PRIOR TO DENTAL IMPLANT TREATMENT

This section provides suggestions for those areas of discussion, which can be incorporated into the initial consultation visits and later form the basis for written confirmation should it be required.

It is recommended that these points be discussed with the patient where relevant and included in the treatment plan where it is felt appropriate, and/or recorded in the patient's notes.

NATURE OF THE PROPOSED TREATMENT

The patient should be informed and understand the purpose and the nature of the implant surgery procedure.

FEASIBLE OPTIONS

As the dental surgeon you should have carefully examined the patient's mouth and explained alternatives to this type of treatment.

POSSIBLE RISKS ASSOCIATED WITH TREATMENT

The patient should be informed of the possible risks and complications involved with surgery, drugs, and anaesthesia. Such complications might include pain, swelling, infection and discolouration.

Numbness of the lip, tongue, chin, cheek, or teeth may occur. The exact duration may not be determinable and may be irreversible. Also possible are vascular trauma and post-op bleeding or ecchymosis, injury to teeth present, bone fractures, sinus penetration, delayed healing, allergic reactions to drugs or medications used, etc.

The patient should be aware that these risks are minimised by the use of appropriate diagnostic investigations, tests and careful treatment planning.

PERSONAL MEDICAL INFORMATION

The patient must give an accurate report of their physical and mental health history and also report any prior allergic or unusual reactions to drugs, food, insect bites, anaesthetics, pollens, dust, blood abnormality, or disease, gum or skin reactions, abnormal bleeding or any other conditions related to their general health. This should be updated and signed by the patient as changes occur.

HEALING RESPONSE

It should be explained that there is no method to predict the gum and bone healing capabilities accurately in each patient following the placement of implant(s) or related procedures.

FAILURE OF IMPLANTS

The patient should be aware that in some instances implants fail and must be removed. The practice of dentistry is not an exact science; no assurances as to the outcome of results of treatment or surgery should be made.

SMOKING, ALCOHOL AND REGULAR DENTAL MAINTENANCE

The patient should understand that excessive smoking, alcohol, or diabetes may affect gum healing and may limit the success of the implant. Furthermore he/she should agree to follow the dental surgeon's written home care instructions and report to the surgery for regular examinations and hygienist supportive therapy as instructed.

ANAESTHESIA AND SEDATION

The patient should agree to the type of anaesthesia, depending on the choice of the dental surgeon. Furthermore they should agree not to operate a motor vehicle or hazardous device for at least 24 hours or more until fully recovered from the effects of the anaesthesia or drugs given for their care.

He/she will be asked to give their written consent prior to each occasion that a general anaesthetic or sedation is administered and arrange suitable escorts from the practice.

PHOTOGRAPHY AND CLINICAL RECORDS

Photography, filming, recording, and X-rays of the procedure will form part of the clinical records. If this material is to be used for any other purposes that would reveal the identity of the patient, his/her permission must be obtained beforehand.

ADDITIONAL TREATMENT WITH DENTAL IMPLANTS

The patient should understand that during, and following the contemplated procedure, surgery, or treatment, conditions may become apparent which warrant, in your judgement additional or alternative treatment. The patient should also approve any modification in design, materials, or care, if it is felt this is in his/her best interest. Wherever possible any modifications should be discussed in advance.

ROUTINE DENTAL MAINTENANCE

Routine dental treatment with fillings and crowns requires regular visits for check-up, prophylaxis and X-rays. A fee per item is normally charged for this.

Extensive bridge and crown work, precision attachments and implants require the same check-ups along with more extensive cleaning techniques using special instruments and materials where implants are involved.

Teeth replaced and connected by precision joints, screws, hinges, studs and clips, locators, etc., need maintenance and replacements when they wear out. Periodically they need to be stripped down, cleaned outside the mouth and screwed together again in the mouth.

Poor oral hygiene and smoking can destroy the support of implants, which may need surgical techniques to repair later.

There are normally three elements to the fees charged for routine maintenance:

1. Materials, replacements, renewal of broken parts or worn parts, spare parts
2. Professional time and expertise involved carrying out this work (hourly rate, for example)
3. Hygienist's fee

All of these charges are payable by the patient.

The dentist will expect the patient to meet these fees regularly at check-up and routine maintenance appointments.

BRUXISM

Patients who show signs of bruxism should be told that their treatment may include some form of bite guard to prevent damage to, or overloading of implant-supported or routine restorations.

More frequent repairs may be required.

GENERAL HEALTH

Patients should be advised that changes in their general health at any time before or after treatment may affect the success of their implants.

Changes to medical history should be volunteered by patients and checked by dentists at each course of treatment.

SINUS AUGMENTATIONS

Possible complications at the time of the procedure

If any infection is found or a tear in the lining of the sinus occurs it may be necessary to discontinue the procedure. (In this event there may be a charge, for the time spent and any materials used.) After three months it may well be possible to continue with the procedure.

Post-operative complications possible immediately after surgery

The occurrence of severe complications is extremely rare but most patients will have some swelling and bruising.

Occasionally partial closure of the eye and mild nosebleeds occur. It is not possible to predict who has what after-effects. The patient may not want to work for a few days.

Later complications

The possibility of infections of the sinus post-operatively is low. If this does occur and the infection continues after antibiotic treatment, it may be necessary to clean the sinus graft out. A rare complication is the development of a small hole from the sinus into the mouth. This can be treated but may require additional surgery.

THE TREATMENT PLAN

General considerations and proposal to the patient. The treatment plan in both its written and verbal form should cover all of the points described in this section that are relevant to the case.

Who is involved?

TREATMENT PLANNING

There are often up to **four** persons involved in dental implant treatment:

1. The **patient**. The entire endeavour is driven by the patient's expressed needs. This should be lifted out of the interview and written, if possible, in the patient's own words to bring to mind his or her particular requirements.
2. The **implant surgeon** is responsible for translating the patient's expressed desires into a feasible implant-supported and stable mechanical device, which will both meet the patient's requirements and be affordable by him or her.
3. The **technician** who will be responsible for making the prosthesis must, from the outset, be aware of the patient's particular requirements, be capable of providing the device required and provide a reliable estimate of its cost.
4. The **referring and/or restorative dentist** may be required to provide preliminary dentistry or be involved in various stages of the provision of dental implants and their long-term maintenance.

Who is in charge?

From the outset of treatment it is important to identify and make known to the patient **who is in overall charge** of case planning and coordination.

WHAT ARE THE ALTERNATIVES TO DENTAL IMPLANTS?

Treatment options?

Focus on the patient's express requirements using, if possible, their own words. List the **alternative** treatments in your discussions and correspondence with the patient, which should include – dentures, bridges or implants or doing nothing and the consequences of doing nothing.

COMPARISON OF TREATMENT ALTERNATIVES

Removable dentures

Advantages

1. Completed in a few weeks
2. Unlikely to need surgery
3. Lower cost

Disadvantages

1. May be unstable
2. Sometimes cannot be tolerated
3. Accumulates plaque or food more readily
4. Does not prevent and may accelerate bone loss

Fixed bridges

Advantages

1. Completed in few visits
2. Unlikely to need surgery
3. Teeth are fixed and immovable

Disadvantages

1. May require cutting healthy teeth leading to possible endodontic problems
2. If one bridge support is compromised, the entire bridge may need to be discarded and replaced
3. May be difficult to remove plaque since floss passes easily between teeth
4. Moderate to higher cost
5. Does not prevent bone loss

Implant-supported bridges and dentures

Advantages

1. Teeth are fixed and do not move
2. No chance of further dental decay
3. Does not require cutting into healthy teeth
4. Well documented longevity
5. Prevents bone loss

Disadvantages

1. Prolonged treatment time
2. Requires surgery
3. Higher cost
4. May be difficult to remove plaque since floss cannot always pass easily between teeth or implants

PREVENTING BONE LOSS

When teeth are lost, bone that is used to support the roots also gradually disappears. An inspection of the areas of the mouth once occupied by teeth usually shows that the gum is much reduced in height and width.

Dentures made at the time of tooth loss become loose as shrinkage of the underlying gum continues. Over many years the loss, or atrophy, of the bone supporting the dentures can become so extensive that well-fitting dentures can neither be made, nor worn with comfort.

The consequences of bone shrinkage also influence the muscles of the lips and face. Over the years the lips fall back and the face collapses where support from muscles diminishes.

Thus loss of bone following the removal of teeth can have profound effects on chewing, talking, appearance and self-confidence.

There is abundant evidence that dental implants prevent the shrinkage of the bone into which they are placed. For this reason the consequences of bone loss are avoided. Moreover, surveys of patients who have worn dentures and have subsequently been provided with implant-supported teeth overwhelmingly report greater levels of confidence, comfort and performance than removable dentures.

Describe what will happen if **NO TREATMENT** is carried out.

INITIAL DISCUSSION ABOUT THE TREATMENT PLAN

How long will it take?

Describe in detail the **treatment proposed** and how it will be carried out, mentioning the **number of appointments** and the likely **intervals** between each key stage. It is also advisable to describe the potential problems that are relevant to each of these stages and the likelihood of unscheduled visits.

Anaesthesia

Give alternatives for **anaesthesia**.

- Local anaesthesia with or without conscious sedation – this should always be preferred over general anaesthesia
- General anaesthesia – should only be undertaken in an appropriate facility and if absolutely necessary from a medical point of view

What are the risks?

What are the **risks** attendant with this form of treatment? In the event of failure what alternatives are available? The risks should also be related to any positive or negative social and/or parafunctional habits, which may impact on the successful outcome of treatment.

What **preparatory** treatment is required in terms of infection control? Site preparation, etc.

Temporary teeth

What form of **temporisation** is planned and for how long. You should also describe the financial implications of its provision, maintenance and the effects of repeated removals or adjustments on the function of the temporaries during the treatment stages.

What will be the **form of the final prosthesis**? Fixed removable or overdenture.

Payment schedule

What are the **payment** details? – Deposits, stage payments and final balance.

Mention possible **ancillary charges** not included in the treatment plan, e.g. broken temporary fillings or crowns, uncemented temporary bridges, necessary X-rays to check the progress of repair, unexpected emergency surgery involving removal of exposed barriers or removal of implants or teeth.

What guarantees (if any) are given?

Put these in writing to clarify what the patient can expect and the dentist can reasonably provide.

PRESENTATION OF TREATMENT PLAN PROPOSAL

Presenting the treatment plan

- Summarise the patient's expectations
- Evaluate the study models and compare the radiographs with similar cases
- Explain to the patient what preliminary procedures may be necessary to be able to fulfil the treatment required
- Repeat the treatment options and present the recommended treatment
- Tell the patient in detail about the next stage and the following stages as an overview so that the patient will be mentally prepared for what is going to happen to them, and what you will expect from them when it comes to motivation and commitment

The stages involved

Initial Dental Treatment: List all that is necessary to establish basic dental fitness, which may include caries removal, periodontal, endodontic and/or orthodontic treatment.

Presurgical Treatment: List all that has to be done prior to the implant placement including other tests, X-rays, CT/CBCT scans, bone augmentation or grafting, including a time frame.

Implant Placement Stage I: Where relevant give a preliminary date for this and also inform the patient of the healing time with and without teeth, suture removal and post-surgical check-ups.

Implant Placement Stage II: Where relevant give a preliminary date for surgical healing time and suture removal.

Completion of treatment

Provision of fixed teeth: On the basis of timing suggested for the implant stages describe the likely number of visits and offer a preliminary date for completed treatment. Indicate if separate provisionals may be required to guide/await final tissue contours and stability.

Estimate the **cost** of treatment and **review methods of payment**.

FOLLOW-UP AND LONG-TERM MAINTENANCE

Maintenance and review

Inform the patient about **oral hygiene and check-ups**. Emphasise their responsibility to engage in the **maintenance programme**; this is part of the patient's duty of care. Clarify how much responsibility the dentist is prepared to take if the patient does not follow advice for checks and maintenance.

CONSENT FOR DENTAL IMPLANT TREATMENT

Implant examination and treatment involves interference with the physical integrity of patients. The law and the GDC in the United Kingdom requires that consent be obtained prior to any examination or treatment. The GDC Guidance to Dentists on professional and personal conduct, "*Standards for the Dental Team*" (GDC, 2013)[1] states that dental professionals MUST:

- Obtain valid consent before starting treatment, explaining all the relevant options and the possible costs
- Make sure that patients (or their representatives) understand the decisions they are being asked to make
- Make sure that the patient's consent remains valid at each stage of investigation or treatment.

In paragraph 3.1.3 the GDC goes on to explain what this means:

"You should find out what your patients want to know as well as what you think they need to know."

Things that patients might want to know include:

- options for treatment, the risks and the potential benefits
- why you think a particular treatment is necessary and appropriate for them
- the consequences, risks and benefits of the treatment you propose
- the likely prognosis
- your recommended opinion
- the cost of the proposed treatment
- what might happen if the treatment is not carried out
- whether the treatment is guaranteed, how long it is guaranteed for and any exclusions that apply (GDC, 2013, p.30)[1]

The following pages are a brief explanation of the relevant aspects of consent in respect of implant dentistry.

Treatment of a patient without valid consent amounts to the crime of battery. Once the patient has agreed to treatment, it is the quality or validity of the consent obtained that would influence the outcome of claims in negligence and GDC investigations, alleging a lack of information or misinformation. Valid consent is not to be a contract to pay fees for treatment.

[1] GDC, 2013. Standards for the Dental Team. (Available to download from http://www.gdc-uk.org/dentalprofessionals/standards/pages/standards.aspx)

A PATIENT'S RIGHTS IN ACCEPTING TREATMENT

Patient's rights

1. A patient has the right under common law to give or withhold consent prior to, and at any point, during examination or treatment. This is one of the basic principles of health care. The Dental Surgeon (and/or an NHS Body) may face an action for damages and/or an investigation by the GDC if a patient is examined and/or treated without consent.

Understanding the treatment

2. Patients are entitled to receive sufficient information in a way that they can understand concerning the proposed treatments, possible alternatives and any substantial risks, in order to make a balanced judgment. Patients must be allowed to decide whether they will agree to the treatment, and they may refuse treatment or withdraw consent to treatment at any time. Patients must not be placed under any pressure to make a decision about treatment.

Respecting the patient's wishes

3. Care should be taken to respect the patient's wishes. This is particularly important when patients may be involved in the training of other dentists. An explanation should be given of the need for practical experience and agreement obtained before proceeding.

THE TEAM LEADER'S ROLE IN ADVISING THE PATIENT OR OBTAINING CONSENT TO TREATMENT

Alternatives to implant treatment

1. Where a choice of implant treatment might reasonably be offered, the surgeon should always advise the patient of his/her recommendations together with reasons for selecting a particular course of action.

   Enough information must be given to ensure that the patient and/or parent/guardian understand the nature, purpose, consequences and any substantial risks of the treatment proposed so that they are able to make a decision based on that information. They should also have a clear understanding of all of the alternatives available to them.

Patient's ability to understand

2. The patient's ability to appreciate the significance of the information should be assessed. For example with patients who:
   - Have difficulty in understanding because of language differences
   - Have impaired sight, hearing or speech
   - Are suffering from mental disability, but who nevertheless have the capacity to give consent to the proposed procedure

Legal competence

3. If implant treatment is proposed on a patient who does not have legal competence, it is advisable for a parent or guardian to be present at all discussions. Where there are language problems, it is important that an interpreter be sought whenever possible.

Degree of consent

4. The person who has overall responsibility for the treatment will have to exercise his or her professional skill and judgment in deciding what risks the patient should be warned of, and the terms in which the warning should be given. They have a duty to warn patients of substantial or unusual risks inherent in any proposed treatment including risks that would be of particular significance if they came to pass for the specific patient.

Obtaining consent

5. Consent to treatment may be implied or expressed. In many cases patients do not explicitly give express consent but their agreement may be implied by compliant actions, e.g. by opening their mouth for a dental examination. Express consent is given when patients confirm their agreement to a procedure or treatment in clear and explicit terms, whether orally or in writing.

Implied consent

6. Implied consent is only sufficient for the simplest of preliminary examinations. In all other cases, written consent should be obtained for any implant treatment carrying any substantial risk or substantial side effect. Written consent should always be obtained for any implant treatment involving surgery. Oral or written consent should be documented in the patient's notes with relevant details of the explanations provided. Where written consent is obtained it should always be retained in the notes.

Written consent

7. The main purpose of written consent is to provide documentary evidence that an explanation of the proposed implant treatment and its alternatives was given and that consent was sought and obtained.

The signature

8. It should be noted that the purpose of obtaining a signature on the consent form is not an end in itself. The most important element of a consent procedure is the duty to ensure that patients understand the nature and purpose of the proposed treatment. Where a patient has not been given appropriate information then valid consent will not have been obtained, despite a signature on the form.

Limitation of consent

9. Consent given for one procedure or episode of treatment does not give an automatic right to undertake any other procedure without a further discussion, even if it becomes apparent mid-treatment that a change of plan is necessary.

Special circumstances

10. Young people over the age of 16 years: The effect of Section 8 of the Family Law Reform Act 1969 is that the consent of a young person who has attained 16 years to any surgical, medical or dental treatment is sufficient in itself and it is not necessary to obtain a separate consent from the parent or guardian. In cases where a child is over the age of 16, but is not competent to give a valid consent, then the consent of a parent or guardian must be sought. However, such power only extends until that child is 18. In those cases where consent cannot be obtained from a person over the age of 18, it is a requirement that a second opinion be sought.

11. Where a child under 16 years requires treatment and has capacity, that child may give consent for treatment; however, the more serious the treatment or the consequences of treatment, the higher the level of capacity must be. It is always prudent to include the parent/guardian in these conversations, with the agreement of the child.

INFORMATION TO BE EXPLAINED TO THE PATIENT BY THE IMPLANT PROVIDER

Benefits

Explanation of the proposed benefits of implant treatment should be directed toward the patient's concerns. Benefits should be explained in terms of minor, moderate or major improvements to dental appearance, health and function and/or to facial appearance. The explanations of benefits should be understandable and unbiased so that patients can freely decide if the proposed benefits are relevant to their needs.

Drawbacks

Every opportunity should be taken to emphasise the need for sustained patient co-operation and compliance throughout a possibly prolonged period of treatment.

Limitations and expectations

The patient should be realistic about expectations, especially if the treatment objectives are limited and where extensive treatment is required to produce relatively small changes. The operator should make it clear what benefit they can expect from treatment in return for the amount of commitment.

Risks

Specific risks in the treatment should be explained in clear terms. First, potential problems during and immediately after treatment, for example, pain and infection should be described. Second, the risk of significant consequences that might affect their quality of life, such as nerve damage or sinus problems need to be explained and the risk quantified if possible. Finally, the risk of treatment being ineffective, or failing post-treatment, perhaps at a much later date should be set out clearly. It is important to stress that patients must continue to see their own dentist regularly for check-ups, after provision of the definitive prosthesis.

Options

The benefits and risks of realistic options must also be given to the patient.

Commitment

Patients must fully understand the commitment and co-operation required for treatment to be successfully completed. Patients must fully understand the strict guidelines laid down to ensure that treatment risks are minimal, especially in respect of hygiene, diet restriction and preventive techniques. They must also understand their responsibility to maintain their prosthesis in a healthy condition and attend regularly for monitoring.

Timing and duration of treatment

It is important to give the patient a realistic time estimate for the treatment and temporisation phases. It is also advisable to identify how often the patient will need to be seen. If at some point you feel more time is required to complete treatment, it should be made clear to the patient so that he or she can plan accordingly.

Cost and methods of payment

It is important that the patient understands fully the cost of treatment, failed appointments, and the replacement of broken, loose or lost temporaries. The method of payment including deposits, stage payments and final payment should be made clear and agreed beforehand.

Are implants necessary?

Treatment with dental implants is optional. Once the patient has received the treatment-plan letter there should be a "cooling-off" period to allow the content of the letter to be adequately considered or follow-up queries dealt with.

Agreement to the treatment proposed can be indicated by returning a copy of the letter duly signed "confirming consent." This approach to treatment also overcomes any issues in relation to the voluntary nature of the consent given.

This section of the ADI Dental Implant Placement Guidelines was adapted from internal publications providing advice to members of the British Orthodontic Society. We would like to thank the BOS for granting permission to use them. We would also like to acknowledge the extensive contributions of Dental Protection (MPS) and the Medical Defence Union during the preparation of this section. We would like to thank Stephen Henderson for his contribution to this 2015 revised edition.

INTER-OPERATOR ARRANGEMENTS FOR TREATMENT INVOLVING DENTAL IMPLANTS

This document is designed to clarify areas of responsibility for diagnosis, treatment planning, execution of the different stages of treatment, responsibilities for maintenance, review and follow-up. A copy should be made available to the patient.

Patient's Name: .....

Address: .....

.....

Referral from: ..... Initials: .....

Implants by: ..... Initials: .....

Prosthetics by: ..... Initials: .....

The patient is referred for:

1. An opinion about possible treatment and is to be sent back to the referring practice for the treatment to be carried out.
2. For the placement of implants as part of an existing treatment course. All correspondence will be copied to the referring practice.
3. For a complete course of implant treatment including the final prosthetic superstructure. The referring practice will be notified when treatment commences and is complete.

Treatment planning and initial diagnosis

The treatment plan will be written and sent to the patient by: .....

Preliminary investigations and information for the patient about the nature of the proposed treatment will be provided by: .....

All diagnostic procedures related to the location of the implants and the teeth that they will support will be undertaken by: .....

Fees

Separate accounts will be submitted by each person providing treatment: .....

All fees payable will be collected by: .....

Surgical stages

Surgical treatment will be carried out by: .....

Surgical aftercare will be carried out by: .....

Implant exposure will be carried out by: .....

The surgeon or dentist responsible for placing the implants must be satisfied that **all treatable infections within hard or soft tissues which could compromise treatment have been resolved** prior to the relevant surgical stages.

Prosthetic stages

Preliminary preparation and temporisation for treatment stages will be carried out by: .....

Abutments will be fitted by: .....

The final prosthesis will be fitted by: .....

General dentistry maintenance and review

Routine maintenance will be carried out by: .....

At 1☐ 3☐ 6☐ or 12☐ month intervals, or as specified thereafter.

Review by the implant provider

The patient will be asked to attend for maintenance/review appointments:

At 1☐ 3☐ 6☐ or 12☐ month intervals, or as specified thereafter with: .....

These arrangements do not prevent either dentist/surgeon from involvement in any aspect of the total treatment being provided.

Signatures of treatment providers

..... Date: .....

..... Date: .....

..... Date: .....

Overall professional responsibility for the treatment rests with:

.....

(Please bear in mind that all parties could be deemed to have joint responsibility in the eyes of the law)

Once the implants have integrated and the patient is sent back to the referring practice, it is this practice's **responsibility for maintenance care, monitoring the patient and re-referral in due time** should problems develop.

All members of the team should be **satisfied with each participant's relevant surgical and prosthetic competence and their willingness to communicate** with each other.

LETTER TEMPLATES

LETTER TEMPLATE TO FOLLOW INITIAL ENQUIRY

Dear .....

Thank you for your enquiry about dental implants.

We are very pleased to be able to offer you this treatment protocol, which has been used in our practice for more than ... years.

As you may have read, dental implants are placed into the bone where the missing roots used to be. If the bone in your jaws has shrunk away, then placing dental implants may be more difficult. New techniques are now available to grow bone where it has been lost, and thus even those patients who may have lost their teeth many years ago can be restored to their satisfaction.

Since the basis of the treatment depends upon how much bone you have, and where it is, the only way to evaluate whether you are suitable for treatment is to take some X-rays (as well as a CBCT scan) and conduct a thorough clinical examination. This of course will require a visit to our practice.

I look forward to seeing you very soon.

Yours sincerely,

LETTER TEMPLATE TO THE PATIENT'S REFERRING DENTIST

Dear .....

Re: .....

Date of Birth: .....

I have completed my initial examination and have drawn up a provisional treatment plan a copy of which is enclosed.

The patient's medical history appears satisfactory. However, I have also written to their general medical practitioner for a second opinion. If the patient, after receipt of the treatment plan, wishes to go ahead with treatment I would be grateful to discover the extent of your desired involvement in the treatment process. You are welcome to sit in on any stage of the placement of the implants.

Should you have any queries regarding this case, please feel free to call.

Many thanks for your kind referral.

Yours sincerely,

TREATMENT PLAN CONFIRMATION LETTER TEMPLATE

Dear .....

After careful consideration of your case, I am pleased to inform you that the prognosis for the placement of dental implants is good. I recommend the placement of (n) implant(s) in the upper left jaw to support a bridge in this area and a further (n) implant(s) in the lower jaw.

Three to six months after the implants are placed (n) abutments (posts) will be placed into the implants and then fixed porcelain crown or bridgework will be fabricated and fitted. Provisional crowns or bridges made of plastic and metal will be used until the permanent ones are fabricated and the gums have sufficiently healed.

The approximate cost for this treatment is listed below; payment will be required in three stages. Payment for phase 1 and 2 will be due on or before the date of each respective surgery; the final payment for the permanent teeth will be due on the date of the fit.

Arrangements have been made if you require a fee schedule. Please inform me if you should like to discuss this.

Phase 1	
Implants (n)	£ .....
Drugs and sedation (per session)	£ .....
Bone grafting and materials	£ .....
Subtotal	**£** .....

Phase 2	
Abutments (n)	£ .....
Drugs and sedation (if needed)	£ .....
Radiograph (OPG)	£ .....
Provisional bridges	£ .....
Upper bridge (x units)	£ .....
Lower left bridge	£ .....
Lower right bridge	£ .....
Subtotal	**£** .....

TOTAL	**£** .....

The minimum necessary appointments would be:

Phase 1 – Six appointments

1. Impressions
2. Bite
3. Try-in
4. Try-in surgical guide
5. Implant surgery
6. Suture removal

Phase 2 – Nine appointments

1. Post placement
2. Suture removal
3. Preparations
4. Impressions
5. Bite
6. Try-in teeth
7. Try-in castings
8. Fit prosthesis
9. Adjustments

Where treatment is to replace a full denture you may be asked to leave out your denture for a period of time. If it is worn during the first crucial few days after placing the implants, too much pressure on them may cause them to fail. In certain cases a soft-lining may be placed inside the denture to reduce the likelihood of this problem.

As you can see this treatment requires many visits. Some appointments may have to be repeated. In many cases one, two or even three weeks must be allowed in between each appointment in order to allow for such things as healing and laboratory procedures.

Should you wish to proceed with treatment, kindly call my receptionist to book a mutually convenient appointment.

If you choose to have sedation, please be reminded that you should not have anything to eat or drink four hours prior to your appointment.

Yours sincerely,

GENERAL INFORMATION ABOUT DENTAL IMPLANTS

This section is designed to provide general information and complement existing patient material, such as the ADI patient leaflet, *Considering Dental Implants?*, and information on the ADI websites, www.consideringdentalimplants.co.uk and www.adi.org.uk.

WHAT ARE IMPLANTS?

Missing teeth can often be replaced by implants. Implants act like roots of teeth. After they have been fitted and have healed in place, dentures or crowns may be attached to them. When dentures are held in place by implants they do not slip around. If crowns are fitted on implants, they act like normal teeth.

There are various types of implants; however, the most commonly placed throughout the world are often described as root-form or endosseous implants. These generally have a cylindrical form and may be threaded on the outer surface to assist placement. Other designs such as blades or subperiosteals are rarely if ever placed these days and whilst in use by some practitioners are not the focus of this information. The success and rapid growth in popularity of the root-form implant is largely due to its predictable outcome when trying to achieve a rigid fixation with the surrounding bone and the maintenance of this state throughout many years of function.

Implants can only be placed if there is enough bone present in the jaw. When teeth are lost, the bone around the teeth gradually disappears. If too much bone has been lost it is possible to re-grow bone in its place utilising one of many protocols and materials.

What are the alternatives?

For people who have **NO** remaining teeth the alternatives are:

- Complete dentures
- Implants to secure their dentures in place
- Implants to support crowns and bridges

For people who have **SOME** of their own teeth the alternatives are:

- Crowns and bridges supported by implants and/or teeth
- Partial dentures secured by implants and/or teeth
- Partial dentures supported by teeth
- Bridges supported by teeth

THE INITIAL EVALUATION AND ADDITIONAL DIAGNOSTIC MATERIAL

General dental health

To plan the most suitable treatment certain information is helpful – for example photographs, X-rays, models of the teeth and jaws. In some circumstances, a more comprehensive three-dimensional X-ray evaluation using a CT/CBCT scan may be requested to give greater detail of the shape of the jaw to assess the quantity of the host bone.

WHAT IS A CT/CBCT SCAN?

The conventional X-ray views most familiar to patients are only two-dimensional and subject to varying degrees of distortion and inaccuracy. Where important anatomical structures must be avoided, the information they provide may therefore be inadequate. The CT/CBCT scan in contrast can provide life-sized three-dimensional information of all regions of the upper and/or lower jaw from which precise measurements can be taken for pre-operative treatment planning. In some cases the CT/CBCT scan may also be used to evaluate the results of bone grafting procedures prior to placing implants.

HAVING A HEALTHY MOUTH

Implants survive best in a healthy environment. Any tooth decay or gum problems need to be discussed with the patient and corrected before implants are placed to give them the best chance of success.

Sometimes treatment is needed before you are ready for implants

Gum Health: Will need to be discussed with the patient and may involve the use of special brushing methods, flossing, toothpicks and small "bottle" brushes. Some gum treatment may be necessary.

Removal of Un-savable Teeth: It is worth explaining to the patient that despite advances in modern dentistry, some teeth may have reached a stage when no treatment can save them. It is often best to remove them at an early stage so as to prevent further bone loss due to diseased teeth.

TREATMENT OF EXISTING OR POTENTIAL ORAL INFECTIONS

Treat or remove all pre-existing oral infection wherever possible

The success of implant therapy can be seriously affected by infections resulting from failed gum or root canal treatments or untreated gum disease or infected teeth in sites adjacent to implants. Long-standing infections of the soft tissues beneath dentures can also adversely affect healing at the various surgical stages. The patient's treatment may be delayed whilst these areas are resolved.

Although gum infections arising in opposite jaws have no clearly proven link with problems around implants, there is at least the theoretical risk of bacterial transmission; therefore it would be considered prudent to assume that there is a risk. The patient's mouth should be treated as a whole and not simply as unrelated regions with oral hygiene needing to be adequate prior to treatment.

HOW MANY IMPLANTS?

As a general principal, as many implants as possible should be used. This allows the stresses of biting to be spread over the maximum number of implants, thus diminishing the load on each particular one.

UPGRADING

Some people find it more convenient to proceed in stages

It is sometimes possible to have two or three implants placed, use them for a while and some time later add more implants to improve the treatment plan. This is not an approach that is feasible in all situations and is probably most suited for treatment of the lower jaw where no teeth are present.

An example of this might be the patient with no teeth in the lower jaw who has two or more implants placed in the first instance. By stabilising their denture using the implants, it can be held more firmly in place. Later on, if they have sufficient bone, more implants can be added and eventually fixed-teeth placed on the implants eliminating the denture altogether. A number of the implant systems available today could support this approach; however, the feasibility of upgrading should be confirmed by all parties rather than assumed although it is always preferable to select the treatment option best suited to the patient at the outset.

WHAT IS IT LIKE HAVING IMPLANTS PLACED?

Before and after implants are placed

Generally speaking, having implants fitted is not at all painful. The majority of patients are simply and effectively treated with local anaesthesia alone mainly due to newer protocols and materials. For apprehensive patients, sedation can be used making the procedure quite comfortable.

WHAT IS IT LIKE AFTER HAVING THE IMPLANTS PLACED?

The after-effects of having implants placed are usually mild and may include slight bruising, dull ache, and swelling, the amount of which will vary dependent upon the number of implants placed and the difficulty of the surgical procedures as well as patient sensitivity.

When choosing a date for implant placement the patient should be advised to avoid significant social engagements and work commitments for at least a week after. This is just to be on the safe side. Taking time off work is not usually necessary. The vast majority of cases do not require medication for pain the following day.

ADDITIONAL PROCEDURES BEFORE IMPLANT PLACEMENT

Creating more bone

It is a natural phenomenon that after teeth have been removed the bone that once supported them slowly resorbs away. This occurs faster when prolonged gum problems (or infections) have been present or poorly fitting dentures are being worn. The result is that there is sometimes not enough bone to support implants.

When there is not enough bone present, it may be necessary to create new bone to fill in missing areas allowing implants to be fitted. A variety of techniques and protocols are available to do this and these are referred to as '**bone grafting**' or augmentation.

The bone or graft particulates used in these situations may be specially treated human donor material from a 'Bone Bank,' animal based products, synthetic substitutes, or the patient's own bone taken from other areas in the mouth where it is available. In special cases where larger amounts of bone are needed, it is possible to move bone from other places such as the hip or shin to the deficient area of the mouth. The area from which the bone is taken will re-grow.

Bone grafting and duration of implant treatment

Where the clinical conditions indicate that bone grafting is required to increase the amount of bone into which implants are placed it may increase the time taken to complete treatment. Under routine circumstances where no bone grafting is required the implants are commonly ready to begin function between 3 and 6 months later. If the bone grafting can be undertaken at the same time that implants are placed, treatment is more likely to take 6 months. Where implant placement must be delayed until after maturation of the bone graft, overall treatment may take 12 months.

Guided bone regeneration

A technique call '**guided bone regeneration**' has also shown considerable success where the amount of bone at the intended implant site is less than ideal.

When a tooth is removed a hole in the gum and bone remains for the first few weeks. Anyone who has lost a tooth or had an extraction knows that this generally heals uneventfully, and eventually the patient cannot tell where the tooth was.

The basic principle behind socket preservation is that placing a special membrane over the extraction socket creates a layer above which the fast growing soft tissue cells are prevented from entering the bony socket. This allows bone cells present beneath the membrane the extra time they need to fill the socket without competition from soft tissues to occupy the same space. Graft materials may also be placed in the socket with or without the use of porcine-based membranes.

SINUS AUGMENTATIONS

The purpose of sinus augmentation

It is very common to find that the softer bone in the area above the upper back teeth (molars and sometimes premolars) is very shallow and not suitable for normal implant procedures. This loss is usually from both directions, by increased pneumatisation of the maxillary sinus and bone loss associated with the loss of the diseased teeth. To solve this problem a procedure known as a 'sinus augmentation' or 'sinus lift' was developed.

Bone may be successfully grown in the sinus spaces above the upper back teeth, allowing implants to be placed. Specially treated donor bone from a 'Bone Bank,' synthetic bone substitutes, or bone from other areas of the mouth or body is placed into these empty areas. Over a period of time this is replaced by new bone thus providing a bed into which implants can be placed.

Implant placement and bone grafting

If the amount of bone overlying the sinus is adequate, some surgeons prefer to place the implants at the same time as the grafting procedures. Whatever type of bone is added to the sinus it must be left to mature before implants are placed or brought into function. If the implants are placed as a secondary procedure (depending on the amount of bone being grown and the nature of the graft material used), they can be inserted after four to nine months, although occasionally it may be necessary to wait longer. The integration of the implants can be measured with a special meter prior to loading to ensure it is adequate.

As with other bone grafting procedures, the implants are left to become firmly attached to bone. Commonly a slightly extended healing period is chosen with an average of six to nine months before a denture or crown and bridgework is fitted. However, all bone grafting is unique to each individual and this information is for guidance only.

ADDITIONAL PROCEDURES AT THE TIME OF IMPLANT PLACEMENT

Additional procedures

Despite the thoroughness of the planning, extra procedures are sometimes required during treatment to produce the best results. It is important that in this event the patient accepts that appropriate alternative treatment is performed at the time of treatment, although it may be different to that already planned. This may include a second bone graft or soft tissue (gum) grafting to improve the aesthetic outcome.

TREATMENT FEES MAY VARY

Fee variations

This is due to:

- Alternative procedures required due to changes in the treatment plan.
- Extra grafting or change in materials to improve the aesthetic result.
- Treatment extending over a longer period of time than expected.

It is important to highlight to the patient that if for some reason it is not possible to proceed with the planned procedure at the treatment appointment, the time spent will be charged at the normal hourly rate. An alternative treatment (even possibly a non-implant route) may be performed if considered appropriate.

AFTER IMPLANT PLACEMENT

Bone loss after implant placement

Sometimes bone may be lost around an implant. There are techniques available to treat these problems if the cause can be identified. In some situations however, progressive bone loss might result in the loss of the implant after many years.

NEW ADVANCES

New techniques and materials

Implantology is a rapidly advancing science. We may take advantage of some of the new procedures or materials as they become available if they promise to improve the outcome significantly. It is important to highlight this to the patient and state that alterations to the original plan may therefore be made during the treatment.

HOW LONG DOES THE TREATMENT TAKE TO COMPLETE?

The need for patience

This depends on the complexity of the treatment. Initially there is a treatment planning stage, which may last a month or so. Then there may be some time spent on such preparatory procedures as improving gum health, removing any un-savable teeth and bone regeneration. This may take anything from a few weeks to many months.

After the implants are placed they are left to settle in place from three to six months. The final fitting of crowns or bridges or the attaching of dentures to the implants takes a month or two. The time depends on the patients individual situation. In some cases the implants are suitable for immediate function with either transitional or permanent teeth fitted at or soon after the placement.

Special medication will be prescribed for the patient to help healing and produce minimal discomfort. To gain the maximum benefit the patient must follow the instructions given.

DO NOT RUSH THE TREATMENT

Respect nature

It is important that neither the patient nor the implant provider attempts to rush the treatment or tries to advance the various stages faster than the time required for complete healing and maturation of bone and soft tissues.

Even treatment that is well planned and executed can fail as a result of moving too quickly from stage to stage. If the patient does not have the time available, then it may be more sensible for them to consider conventional forms of dentistry, which may be completed more rapidly.

You, the implant provider, may suggest that procedures to grow bone are undertaken separately from placing the implants, even though under certain conditions (with newer materials and protocols) it is possible to combine these stages.

PRECAUTIONS FOR DENTURE WEARERS

Wearing dentures immediately after surgery?

Denture wearers may require their dentures to be modified or be asked to leave them out for a period of time to prevent them resting on newly placed implants. During settling-in stages, metal framework dentures may need to be replaced with a plastic set, as they are more easily adjustable. The fitting surface can then be altered when the implants are placed.

REPORTING PROBLEMS AND QUERIES

The patient should be advised to telephone immediately should anything arise that they are concerned about.

THE FINISHED TEETH – AFTERCARE

Unlike teeth, implants cannot get tooth decay. However, like teeth, they can suffer from gum problems. Teeth with untreated gum problems can become loose and be lost. This is also true of implants.

Thorough daily cleaning is as important with implants as it is with teeth.

FOLLOW-UP APPOINTMENTS AND REGULAR CHECK-UPS

Routine maintencance

To ensure that any problems are detected early, regular maintenance check-ups are advisable. Problems are more easily treated if detected early. Check-ups may be recommended three, four or six monthly. In most cases review appointments will be more frequent during the first year that the implants are in function.

SOME EXAMPLES OF PROBLEMS THAT CAN ARISE

When to contact your dentist

Porcelain crowns attached to implants may break in the same way that they can when attached to natural teeth. However, removal of crowns from implants for repair is usually easier than from natural teeth. Implant supported bridges that become loose should be re-tightened immediately to reduce the likelihood of further unnecessary damage.

Should it be discovered during a routine maintenance visit that an implant has failed or is failing, appropriate remedial action will be planned accordingly. Implants that become loose will not re-tighten and should be removed at the earliest opportunity. It is important that the patient immediately reports any areas of soreness, discharge or pain on chewing near any implant or tooth to the dentist responsible for their maintenance.

SUCCESSFUL TREATMENT

Implant success and your commitment to long-term maintenance?

Success depends on the patient's body's reaction to implants and their personal care of them. Implants can fail due to gum disease, just as teeth do. Success is constantly improving due to improved techniques. Natural teeth last longer today as awareness of the need for looking after them becomes more accepted. However, there would not be a need for implants if teeth were totally successful.

SMOKING AND ALCOHOL CONSUMPTION

Both smoking and heavy alcohol consumption reduce the survival of implants (and teeth). If the patient thinks that either of these two habits could be a problem for them and their implants, it may be advisable to avoid this form of dental treatment or accept the higher risk of implant failure.

GENERAL HEALTH ADVICE BEFORE, DURING AND AFTER IMPLANT PLACEMENT

The guidelines shown on the following pages are not intended to be prescriptive, but should be borne in mind for the pre- and post-operative phases of the implant treatment. As the dentist or physician, you should be prepared to advise the patient as to which elements are most appropriate.

GENERAL HEALTH CONSIDERATIONS BEFORE IMPLANT PLACEMENT

Introduction

Dental implants are fixed into the bone of the jaw through an opening in the gum. In order for the implants to be usable, they must be locked into the jawbone and surrounded by healthy gum tissue. The complex healing requirements of bone and skin required for this to come about can be critically influenced by the patient's oral health and general health. It is important that the patient provides you, the dentist with a clear and accurate medical history including a list of long term illness and medication that they may be taking.

Healing

Healing can be enhanced by the patient arriving at the dental office in the best possible state of health prior to the operation, and by following the regime suggested by the surgeon during and after each stage.

Timing of the treatment

Inform the patient that they may be asked to leave out their denture or adhere to a particular dietary regime for a period of time.

It is important to explain that there may be some minor discomfort or swelling after the operation which can last for an average of 2-3 days. Sometimes these symptoms may persist for slightly longer depending upon the complexity of the surgical procedures and individual patient variations.

Sedation

Inform the patient that if they are having sedation, they must make sure a responsible person is available to escort them home and someone must remain with them for 24 hours.

Aspirin

If the patient has been prescribed Aspirin or any other anti-coagulants (blood thinning medications), by their physician, you must tell them to cease the medication for 24 hours prior to surgery unless specifically told otherwise by their specialist. It is also important to ask the patient to inform you, the dentist if they are self-medicating and the dose.

Antibiotics

Remind the patient to ensure they have taken the prescribed antibiotics before arriving at the dental office and that they complete the course of medication in the period afterwards.

Smoking

Research has shown that heavy smoking, i.e. more than 15 cigarettes daily, may adversely influence post-operative healing and could affect the long-term health of the implants and supporting bone.

If at all possible, smokers should give very serious consideration to giving up smoking altogether, or discuss with the patient a suitable period of cessation pre- and post-operatively for the key surgical stages. It is suggested that even smoking cessation for a 2-week period around the surgical phase can be very beneficial.

Supplements

Vitamin/mineral supplements may be advised in the pre-operative phase although clear benefits have not yet been established.

INSTRUCTIONS TO PATIENTS AT IMPLANT PLACEMENT (STAGE 1)

Discomfort	Normally we find that implant placement is followed by only minor discomfort. Any discomfort can be minimised by following the instructions below.
Pain	If the patient experiences pain when the anaesthetic has worn off they should follow the regime of pain control that has been given. If the pain continues for more than a few days it is advisable that they contact their dentist.
Bleeding or oozing	Minor oozing may discolour the patient's saliva for some hours after leaving the surgery. However, if bleeding continues and clots are evident, the patient should be advised to identify the source and apply gentle pressure to the area with a gauze pad soaked in warm salty water for 15 minutes. This may be repeated three or four times. If bleeding continues after this, they should contact the dental office.
Sleeping	The patient should be advised to sleep with an extra pillow to lift their head for the first 2-3 nights to reduce the amount of swelling that may occur.
Ice packs	Ice packs can be held over the area operated upon for 20-30 minute intervals, totaling not more than one to two hours during the first two days after the operation. This will normally reduce the amount of swelling.
Smoking	The patient must be informed that they should not smoke for two weeks before and after the operation as this can seriously affect the success of the implant placement.
Drinking	The patient should avoid alcohol for two weeks after the operation as this can impair healing. • For the first 24 hours take no hot liquids, e.g. coffee, tea or soup • For the first 24 hours minimise your exertion; rest, books and TV are best
Salt water	The day after surgery (not less than 24 hours), the patient should commence warm salt rinses (1/4 to 1/2 teaspoon of salt in a cup of warm water) two or three times a day. Each rinse should be held against the affected area so that the warm salty water cools over it and is held there until the heat is gone. This should be repeated until the cup is finished. This should last about 10 minutes each time.
Dentures	The patient must leave their denture out if instructed to do so, until it can be re-lined with a soft lining material.
Meals	After each meal, the patient should gently rinse their mouth with warm water.
Brushing	The patient should not brush the area where the implants have been placed for at least a week.
Tongue	The patient should be advised to not explore the area with their tongue as this may loosen the stitches.
Diet	The patient should be advised that during the first week any food may be eaten provided it is soft. Such as, boiled fish, scrambled eggs, pasta, rice, etc., although any meal may be mashed or passed through a blender to render it soft.
Supplements	Vitamin/mineral supplements may be suggested although clear benefits have not yet been established. Taking Arnica pre-operatively may be of some benefit in the reduction of post-op swelling.

Problems

The patient should contact the surgery if:

- Numbness persists for more than six hours after the operation
- The stitches become loose or fall out
- There is excessive pain
- There is excessive bleeding
- The implants become visible

The following instructions should be given to patients after sinus augmentation

- Avoid blowing nose for 2 weeks
- Sneeze through mouth
- Avoid swimming or flying
- Report nosebleeds or sinus pain or swelling IMMEDIATELY

Nosebleeds or sinus pains

There is a small chance that a nosebleed may occur after the procedure. Should this happen the patient should sit upright and apply a cold compress.

Typical healing patterns

There is a wide range of normal healing responses. Swelling is often worse by the second or third day and may persist for a few days.

INSTRUCTIONS TO PATIENTS AT IMPLANT EXPOSURE (STAGE 2)

Discomfort	Normally we find that implant exposure is followed by only minor discomfort. Any discomfort can be minimised by following the instructions below.
Pain	If the patient experiences pain when the anaesthetic has worn off they should follow the regime of pain control that has been given.
Bleeding or oozing	Minor oozing may discolour the patient's saliva for some hours after leaving the surgery. However, if bleeding continues and clots are evident, the patient should be advised to identify the source and apply gentle pressure to the area with a gauze pad soaked in warm salty water for 15 minutes. This may be repeated three or four times. If bleeding continues after this, they should contact the dental office.
Smoking	The patient must be informed that they should not smoke for two weeks after the operation as this can seriously affect the success of the implant placement.
Alcohol	The patient should be told to avoid alcohol for two weeks after the operation as this can impair healing.
Hot food and drinks	The patient should be told to take no hot food or drinks for the first 24 hours. After this, they should avoid food that is fibrous or tough as this may damage the gums healing around the posts.
Salt water	The day after surgery (not less than 24 hours), the patient should commence warm salt rinses (1/4 to 1/2 teaspoon of salt in a cup of warm water) two or three times a day. Each rinse should be held against the affected area so that the warm salty water cools over it and is held there until the heat is gone. This should be repeated until the cup is finished. This should last about 10 minutes each time.
Dentures	The patient must leave their denture out if instructed to do so, until it can be re-lined with a soft lining material.
Meals	After each meal, the patient should gently rinse their mouth with warm water.
Brushing	The patients should not brush the area where the posts have been placed for five days. Then commence gently with a soft toothbrush dipped in hot water.
Stitch care	The patient should be advised to not explore the area with their tongue as this may loosen the stitches.
Problems	The patient should contact the surgery if: • The stitches become loose or fall out • There is excessive pain • There is excessive bleeding • If the posts become loose
Stitch removal	After the stitches have been removed or dissolved away, the implants are the patient's responsibility and it is their duty to keep all scheduled maintenance appointments and build a habit of rigorous cleanliness around these posts.
Late problems	The patient must contact the surgery if there is any alteration in the way their mouth feels in regard to pain, bleeding, loosening of implants, bad taste or any change in the way the teeth meet on closing their jaw.

NOTES ON THE CARE OF IMPLANT-SUPPORTED TEETH

GENERAL AND DENTAL IMPLANT HYGIENE

Home care	Implants with the longest history of comfort and function are those that reside in healthy, clean mouths. The patient's implants should be maintained in a healthy condition by a combination of excellent oral hygiene practice at home and regular visits to the dental hygienist. You should inform the patients that during the early years they will commonly be asked back annually to check the implants by means of an X-ray and careful probing.
Objective	The patient should be informed that tooth cleaning has the primary objective of preventing bacteria from plaque growing down into the crevice between the gum and the implant post. This area must be physically cleaned at least twice a day around every implant.
Timing	As a minimum teeth and implants should be thoroughly cleaned on waking to remove the abundant plaque that accumulates at night and last thing at night before retiring.
Materials	Any soft/medium toothbrush, angulated brushes or bottlebrushes as appropriate may be recommended.
Toothpaste	Any anti-plaque toothpaste or gel, preferably not powder.
Flossing	'Superfloss™' type materials are excellent for polishing the necks of implants. Regular dental floss/tape may also be recommended. Floss threaders can be helpful in reaching otherwise difficult to clean areas.
Electric toothbrush	An electric toothbrush can be effective and may be recommended and advice given on its appropriate use and efficacy.
Irrigation	You, the dentist could advise manual or electric irrigation systems to be used with chlorhexidine or saline solution.
Mouthwashes	Mouthwashes or gels: preferably chlorhexidine based and used only as advised.
Problems	The patient should be told to contact the practice PROMPTLY if any teeth or implant-supported structures become loose or if they notice pain, bleeding, swelling, a bad taste or alteration in the way the teeth bite together.

SURGERY CHECKLISTS

Name: Date:

First visit – examination

Date: Initials:

Examination protocol
X-rays
Impressions for study models
Bite registration
Face-bow registration
Ridge-mapping instruments
Camera for preliminary photographs
Ask for earlier photographs

Additional notes:

Second visit – diagnosis & case presentation

Date: Initials:

Study models
X-rays
CT/CBCT scan
Photographs of similar cases
X-rays of past cases, before / after

Additional notes:

Prior to stage I implant placement

Date: Initials:

Implants available
OPG/CT/CBCT scan prepared
Surgical guide ready

Surgical set-up for:

Implant placement
Bone expansion
Augmentation materials and saline
Guided tissue regeneration barriers and fixation screws
Sedation booked or set-up
Surgical record pro forma available

Additional notes:

Stage II implant surgery

Date: Initials:

Prosthetic and impression components
Angled components where necessary
Prosthetic guide available

Surgical set-up for:

Implant exposure
Soft-tissue augmentation

Additional notes:

MANAGEMENT CHECKLISTS

Name: Date:

Enquiry for treatment using dental implants

Date: Initials:

- Obtain patient's phone number(s), address and D.O.B
- Obtain general impression of patient's requirements
- Talk about benefits of dental implants in regard to appearance, comfort and function
- Send medical and dental questionnaires
- Indicate that questionnaires may be answered at the initial appointment if preferred
- Send appropriate implant information
- Make appointment to discuss case and take OPG

First visit – examination

Date: Initials:

- Medical questionnaire completed
- Dental questionnaire completed
- Dental implant information given
- Show patient slides, video and/or cases
- Obtain some impression of the patient's needs

Second visit – diagnosis & case presentation

Date: Initials:

- Record the date that the treatment plan was sent in the patient's records
- Send the hand-out regarding oral health advice before implant placement
- Copy of treatment plan sent to the referring dentist/surgeon
- Make necessary appointments for the preliminary procedures

Acceptance of treatment plan

Date: Initials:

- On receipt of the patient's acceptance letter/telephone call, instruct the laboratory to make the surgical guide
- Order the implants
- Send letter to patient's dentist giving the planned procedure and the date

Preliminary procedures

Date: Initials:

- Caries and failing restorations listed in order of attention
- Periodontal treatment and oral hygiene instruction
- Division of treatment between dentist and hygienist
- Number of appointments required

Orthodontics

- Referral letter

Endodontics

- Referral letter

Augmentation and/or site preparation

- Appointment schedule
- Materials to be ordered

Trial denture provision

Date: Initials:

- Make appointments to provide a denture up to the stage of the try-in
- Check that notes have a record of the patient's acceptance of the trial dentures
- Give or send the patient instructions on general health prior to implant placement

MANAGEMENT CHECKLISTS

Name: Date:

Stage I implant placement

Date: Initials:

- Antibiotic cover taken
- Aspirin stopped for previous two weeks
- No changes in medical or dental history
- No cold or flu
- Post-operative advice leaflet
- Pain killers and sleeping pills
- Antibiotic prescription
- An escort for those undergoing sedation
- Suture removal appointment
- Phone number for emergencies given

Stage II implant exposure

Date: Initials:

- Antibiotic cover taken
- Aspirin stopped for previous 24 hours
- No changes in medical or dental history
- No cold or flu
- Post-operative advice leaflet
- Pain killers and sleeping pills
- Antibiotic prescription
- An escort for those undergoing sedation
- Suture removal appointment
- Phone number for emergencies given

Implant maintenance following exposure

Date: Initials:

- Ensure patient has hygienist visits booked
- Make appointment for check-up with dental surgeon in ONE MONTH
- Dental maintenance contract signed
- Ensure patient has a pack of oral hygiene equipment to take
- Electric toothbrush required?
- Provide patient with leaflet on the care of implant-supported teeth

Oral hygiene

Date: Initials:

Inform patient in detail how and when to use:

- Soft toothbrush
- Interdental brushes
- End-tufted brushes
- Dental floss
- Disclosing tablets
- Dental mirror
- Chlorhexidine liquid and/or gel
- Toothpicks

Provide the patient with a kit of these aids and information about where to find replacements for them

Additional notes:

NOTES

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