



## **FAST ALIGNERS – FORUM FOR DENTISTS**

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### **ABSTRACT**

**There are a wide variety of techniques, prescriptions and materials that can be used to correct different dental cases. Fast Aligner – Forum for Dentists provides great benefit to the user as it provides easy interactions, provides user-friendly interfaces and reduces wastage of time in manual process. This is extremely reliable and completely integrated so that it is committed to the users. Fast Aligner – Forum for Dentists is designed with the intention to provide a discussion board for dentists who are providing treatment using Fast Align invisible aligners.**

### **I INTRODUCTION**

#### **1.1 Project Introduction:**

Fast Aligner – Forum for Dentists. The purpose of Fast Aligner – Forum for Dentists is to provide an online discussion board for dentists regarding the purchase of fast aligners according to the requirements of patients, to upload detailed cases of patients, chat with other dentists about the various cases and payment details for the ordered product.

Fast Align is an invisible aligner treatment to straighten crooked teeth faster. It is a modern technology in the area of orthodontics. Fast Align is a brand of invisible aligners manufactured and promoted by a group of dentists in Mangalore. The overall expenditure for setting up and manufacturing aligners is very high. Currently, the manufacturing and promotion is handled by a small group of dentists. The aligners must be manufactured according to the requirements of the patients. Every patient's case will be unique. It is difficult to analyse various patients' cases of every dentist manually and give them solutions in terms of the best aligner treatment. It is required to analyse and study the various angles and views of the

patient's teeth and develop an aligner which will be perfect for the patient's complete treatment.

#### **1.2 Problem description:**

This project work is an attempt to provide the advantages of online supply of aligners of required size to customers/patients when they are in need. Once you meet your dental surgeon, he/she will evaluate and decide whether you are suitable for the Fast Align treatment. If found suitable, your dental surgeon will scan/make impressions, take x-rays and photographs as prescribed by Fast Align and will send it to us.

To cater to these various needs of the dentists, this real-time web application, Fast Aligner-Forum for Dentists, is developed. This online discussion board supports dentists for the entire process from analysing a patient's case to procuring a customized aligner according to the patient's requirement. It helps in uploading the detailed case of patients along with the images of the different angles of the patient's teeth, chat with other dentists about the complexities of the case, place an order for aligners according to the requirement of each patient, upload videos of the patient's side or frontal view of the mouth, share payment details and make a payment for the order placed.

### **II LITERATURE REVIEW**

[2] The effectiveness of orthodontic treatment using conventional fixed appliances has been described for years. In the early years of the orthodontic profession, every tooth required banding. Bonding of brackets was introduced almost forty years ago and the search for esthetically pleasing appliances has evolved ever since. Esthetic treatment options include lingual brackets, polycarbonate and ceramic brackets and more recently, removable aligners.

[3] Drastic improvements in clear aligner treatment have taken place and the popularity of these appliances has steadily increased among many patients, especially adults who are often reluctant to wear fixed appliances. The first report of an elastic and removable tooth positioning appliance, built from an individualized setup of plaster cast models, dates back to 1945.

### III MATERIALS & METHODS

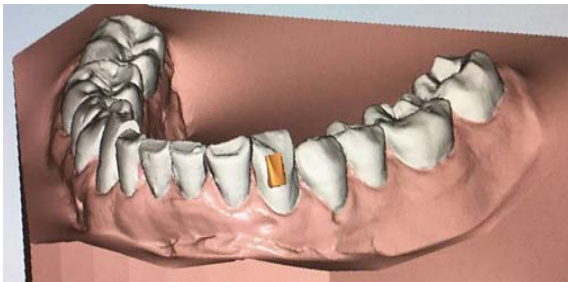
In this section, a detailed procedure for designing of Clear Aligner has been presented,

Evaluation, Diagnosis and treatment planning  
Scaling, restorations and any other treatment/s should be completed before making impressions to be sent to Fast Align. Photographs and radiographs should be uploaded along with patient details. Click on view more to refer the case history and details required for the Fast Align treatment.



#### **PVS Impression and Bite Registration**

The use of Bite Registration is a necessity and viewed as a simple procedure by most however if not done properly is a waste of time and money for both clinician and laboratory. Making the decision regarding which Bite Registration material is a simple one and is based on the impression materials that accompany it to the lab.



#### **3D Modelling**

Using the Ally Software, our panel of specialised Orthodontists will plan the treatment, amount of tooth movement and design the aligner which will be emailed/ sent as a Whatsapp video to the

dental surgeon for approval who can also request for modifications as per the patient requirement.

#### **Approving the treatment Plan**

Once the impressions have been received, you will receive an email / Whatsapp video on the registered contacts within 7 working days. You will need to approve of the treatment plan and should there be any changes required it should be informed to the panel of specialised Orthodontists working personally on every case received. After approval, you will receive the fabricated aligners in about 21 working days at the registered address ready for insertion.



#### **Fast Align Series**

Each patient will need to wear a series of aligners each to be worn for a time period of approximately 15 days and a minimum of 20 hours a day. At the end of the treatment Fast Align retainers will be provided. The duration of treatment is based on 2 factors:

- Severity and amount of tooth movement required
- Number of hours the aligner is worn each day.

#### **Attachment Placement & Results**

In severe cases (e.g.: rotation, intrusion, extrusion, torque, bodily movement of tooth etc) attachments will have to be placed. Treatment time may vary from 4 months to 2 years, after which Fast Align retainers will be provided to be worn for a prescribed time period and will have no significant influence on the force required for aligner removal and hence on aligner retention.

### IV SYSTEM STUDY

#### **4.1 Existing System with limitations:**

The change in the total alignment score in the Invisalign group was significantly larger than that for the Braces group. Braces use brackets connected by wires to encourage teeth to move.

In this sample for this period of observation, patients treated with Invisalign

relapsed more than those treated with conventional fixed appliances.

#### **4.2 Proposed System with limitations:**

Everybody wants a great smile, but a lot of us need help in getting there. More and more people are having success with clear orthodontic devices called aligners.

Aligners are a series of tight-fitting custom-made retainers that slip over the teeth. Invisalign is the largest producer of clear aligners, but it's not the only brand. Others include Clear Correct, Inman Aligner, and Smart Moves. Clear (or "invisible") aligners aren't for everyone. Your orthodontist or dentist will help you decide what's best for you. Get references or before-and-after images of their patients.

#### **V RESULT & ANALYSIS:**

Fast align is an invisible teeth align treatment to straighten your crooked teeth faster We offer treatment to young and old. We make beautiful smiles affordable for everyone.

Optimal treatment forces are exerted by low-friction wires, especially if they are partially engaged. Moreover, by reducing the treatment force, there is less necessity of anchoring to surrounding teeth, thus decreasing the side effects. The efficacy of using invisible aligners with a divot was validated.

##### **INVISIBLE:**

A breakthrough from the conventional metallic braces these aligners are transparent helping you smile confidently in the crowd.

##### **REMOVABLE:**

These aligners are user friendly allowing you to remove them during socially sensitive occasions.

##### **CUSTOMISED:**

These aligners are made especially for each individual after a detailed planning by our panel of specialised orthodontists.

##### **GET EVALUATED:**

Once you meet your dental surgeon, he/she will evaluate and decide whether you are suitable for the Fast Align treatment. If found suitable, your dental surgeon will scan/make impressions, take x-rays and photographs as prescribed by Fast Align and will send it to us.

This platform allowed measurement, at the ridiculer level, of the resultant forces of orthodontic treatments performed with different orthodontic appliances. In addition to customizing and calibrating the therapy for each patient, this platform could be used to develop new specific instruments able to exert lower treatment forces, thus preventing irreversible damages

#### **VI CONCLUSION**

Fast Aligner – Forum for Dentists, would be very useful for the dentists to manage their patients who have opted for invisible aligner treatment .It will help the dentists to upload the detailed profile of the patients along with the images of the teeth .They can discuss about the best possible treatment plan for the patients with the admin and come up with a plan along with the effective pricing. It will remove all the manual work required by dentists in managing their patients profile and trying to come up with a best invisible aligner treatment plan.

#### **6.1 Scope For the Future Prospects:**

- Allows an easy relaxed way of browsing and getting the required size invisible aligners.
- Allows customer to design the aligners as per his/her wish.
- Gets everything you need, when you need right at your doorstep.
- Saves lot of customers time.
- Increased customer satisfaction.

#### **VII REFERENCES**

- [1] A clinical case treated with clear aligners Available from: [https://www.researchgate.net/publication/51749730\\_A\\_clinical\\_case\\_treated\\_with\\_clear\\_aligners](https://www.researchgate.net/publication/51749730_A_clinical_case_treated_with_clear_aligners)
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