

# ***E- Learning in Prosthodontics***

**Dr Saeed Deshpande**

**Reader**

**Dept. of Prosthodontics**

**VSPM's Dental College & Research Centre,  
Nagpur-19.**

# Introduction

- While planning oral rehabilitation, the partially / completely edentulous adult offers a unique and problem-rich resource as a basis for a case-based learning scenario in clinical dentistry.
- However, there is little resource material available to help students decide treatment options and treatment sequencing after diagnosis has been made.

# Introduction

- Key issues to be considered include
- state of the art treatment options,
- the realities of time constraints,
- limitations of operator skill,
- patient compliance,
- financial pressure and
- legal and ethical dilemmas

# Introduction

- To address the educational void surrounding the teaching and learning of oral rehabilitation strategies, a software '*Interactive Learning In Prosthodontics: Decision Making In The Oral Rehabilitation Of The Partially & Completely Edentulous Adult*'.

## **SCREEN 1**

**STUDENT HAS TO SELECT A PATIENT  
FROM ONE OF 20 AVAILABLE OPTIONS.**

Selected Patient : Patient 1

Age in years : 20

Sex : Male

Welcome

Case

Treatment Plan



## CASE ASSISTED LEARNING IN PROSTODONTICS

Decision Making In Oral Rehabilitation Of Completely Or Partially Edentulous Adult.

Select Your Patient :

- ▼
- Patient 1 ▲
- Patient 2
- Patient 3
- Patient 4
- Patient 5**
- Patient 6
- Patient 7 ▼



BEAUTIFUL SMILE

### CREDITS

Concept : Dr. Saee Deshpande

Contributors :

Dr. Niraja Jaiswal, Dr. Mohna Tagore,  
Dr. Ankur Gupta

Designed & Developed by :  
Manoj Prasad (Computer Professional)  
Mob. No. 9890147464

## Screen 2

### All Relevant Clinical Details

Chief Complaint,  
Past Dental History,  
Relevant Medical History,  
Relevant Clinical Examination,  
Radiological (IOPA,OPG,CT/MRI) Findings,  
Vitality Test.

Selected Patient : Patient 9

Age in years : 47

Sex : Male

Welcome

Case

Treatment Plan

Pre-treatment Intraoral View(s)



Radiograph



**Chief Complaint :** Difficulty in mastication and poor esthetics due to worn teeth

**Past Dental History :** Patient complains of persistent teeth sensitivity since past 5-6 yrs. He was advised desensitising tooth paste and a soft brush but no restorative treatment was advised.

**Relevant Medical History :** NC

**Relevant Clinical Examination :** Generalised severe tooth wear  
Loss of VD , drooping lower third of face, fissure corner of mouth

**Assessment of VDR & O:**

FWS: 5-6 mm

CSS: 3-4 mm



Chief Complaint
Past Dental History
Relevant Medical History
Relevant Clinical Examination
Radiographs / CT / MRI
Vitality Test



## Screen 3

Treatment planning

Urgent treatment

Pre – Prosthetic Phase

(endodontic/periodontal/surgical/orthodontic T/t)

Prosthetic Treatment

Maintenance

Prognosis.

Selected Patient : Patient 9

Age in years : 47

Sex : Male

Welcome

Case

Treatment Plan

Emergency Treatment :

Pre-Prosthetic Treatment  
(Endo / Perio / Ortho /  
Surgery):

Prosthetic Treatment :

Show Ideal  
Treatment Plan of:

CD

RPD

FPD

Implants

Maxillo-facial

Maintenance Phase :

Prognosis :

Excellent

Good

Fair

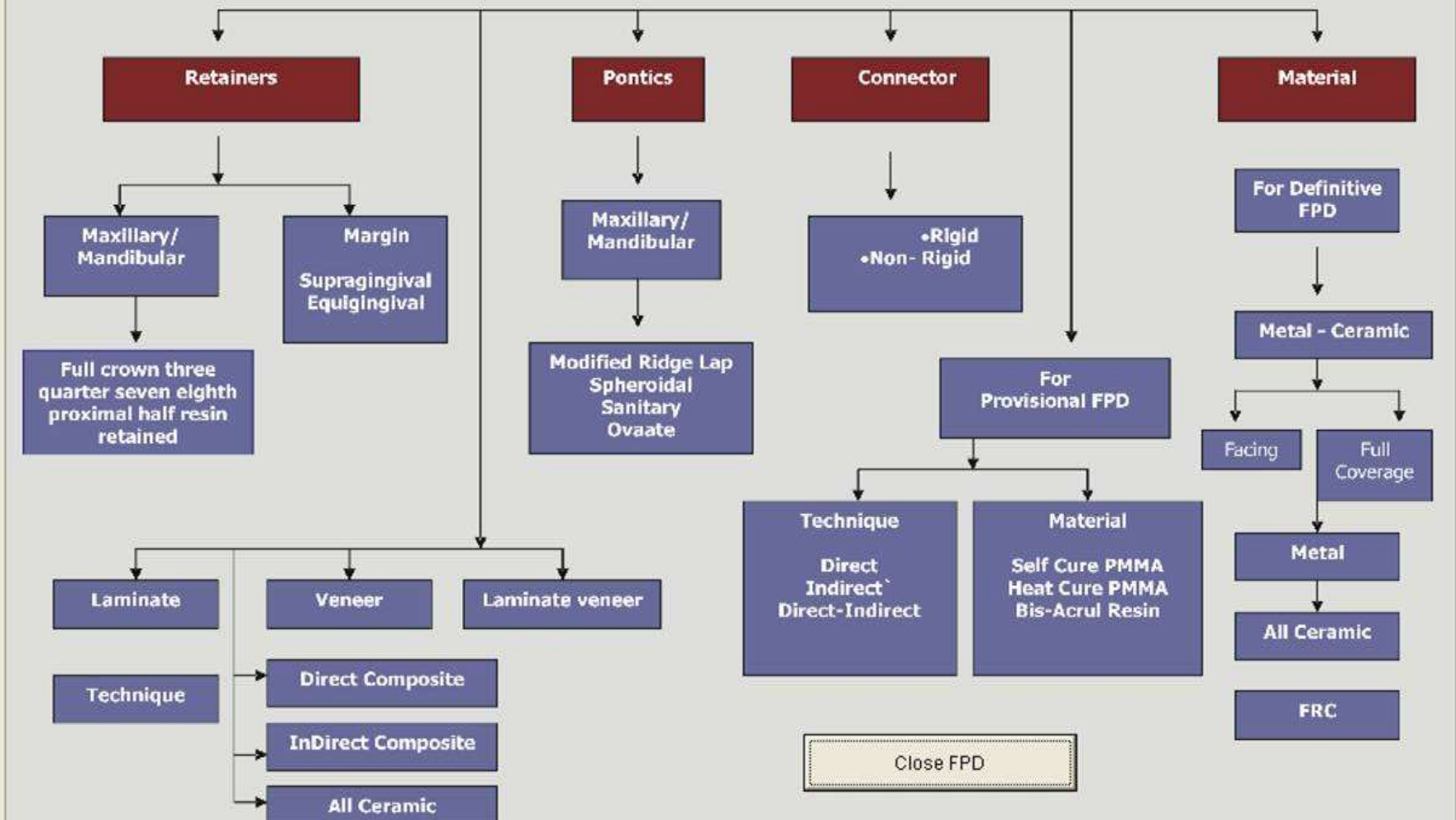
Poor

Guarded

Once you proceed with Submit, you can't view your entered data :

Submit

## FIXED PARTIAL Denture



## Screen 5

Ideal treatment plan as opposed to one submitted by student is displayed.

Selected Patient : Patient 9

Age in years : 47

Sex : Male

## IDEAL TREATMENT PLAN

## YOUR TREATMENT PLAN

Emergency Treatment :

Pre-Prosthetic Treatment  
(Endo / Perio / Ortho /  
Surgery):

Oral prophylaxis  
RCT 16 13 36 47  
Extraction of 38 48 and root piece with 26  
Full mouth CLP at least 2mm on all surfaces

Prosthetic Treatment :

Full mouth rehabilitation with fixed crowns at restored VR (+2mm)  
core build up with composite resins with intra-chamber retention.  
Assessment of restored VR on provisionals for 1 month.  
Metal ceramic crowns with 13-23, 33-43.  
metal with ceramic facing on 14 15 24 , 34 35 44 45.

Maintenance Phase :

Oral hygiene maintenance, recall at every 6 months.  
Night guard to prevent further wear due to bruxism.

Prognosis :

Excellent  Good  Fair  Poor  Guarded

# Evaluation

- The disc was evaluated by **final-year students & interns** from the Dept of Prosthodontics, VSPM's Dental College & Research Centre, Nagpur. Students were asked to use the software and then given an anonymous questionnaire.

# Feedback (Questionnaire)

Previous computer experience varied from little or no computer experience (20%) having used computers 'hundreds of times!' (30%).

It was interesting to note that limited computer expertise did not seem to impact on feeling '.... comfortable using the computer for this learning experience'.

**81% per cent of students felt 'very' or 'quite' comfortable using the program.**

**Overall response was positive.**

# Feedback (Questionnaire)

- Ninety per cent answered the question 'How important is it to learn how to plan oral rehabilitation? Why?' by positive phrases such as
- 'Very, very important. It is a major part of being a dentist', 'Crucial', '...basis of good practice', etc.



# Feedback (Questionnaire)

- The 'best things about the program' were perceived to be the **interactive and self-paced** nature of the learning process, as well as the **the screen design and layout**.
- Students also described the program in their own words as 'interesting', 'comprehensive' and 'relevant'.

# Feedback (Questionnaire)

- When asked 'What was the main thing you learnt?' most answers referred to the **logical progression of planning, the insight into decision making and the need for flexibility in planning treatment.**
- All students felt that the program increased their confidence in planning oral rehabilitation.

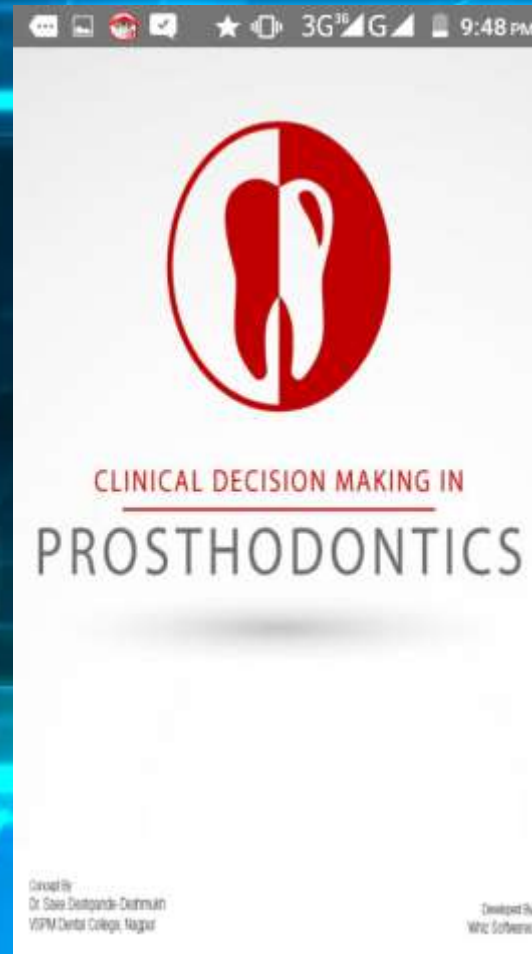
# Feedback (Questionnaire)

- In response to the question 'Would learning about oral rehabilitation be better in lectures?',
  - 44% answered 'no',
  - 34% wanted a combination of both,
  - 22% felt that lectures would be better.

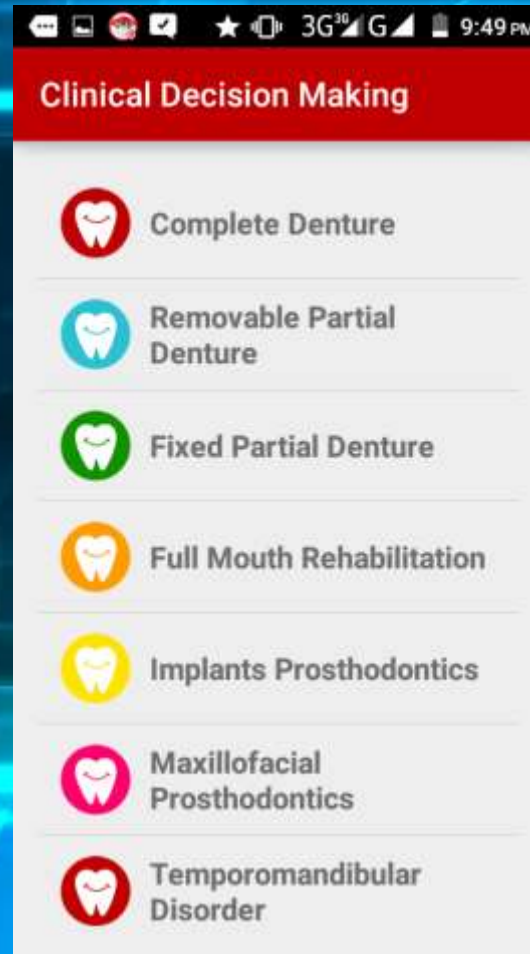


Use of mobile app for e-learning

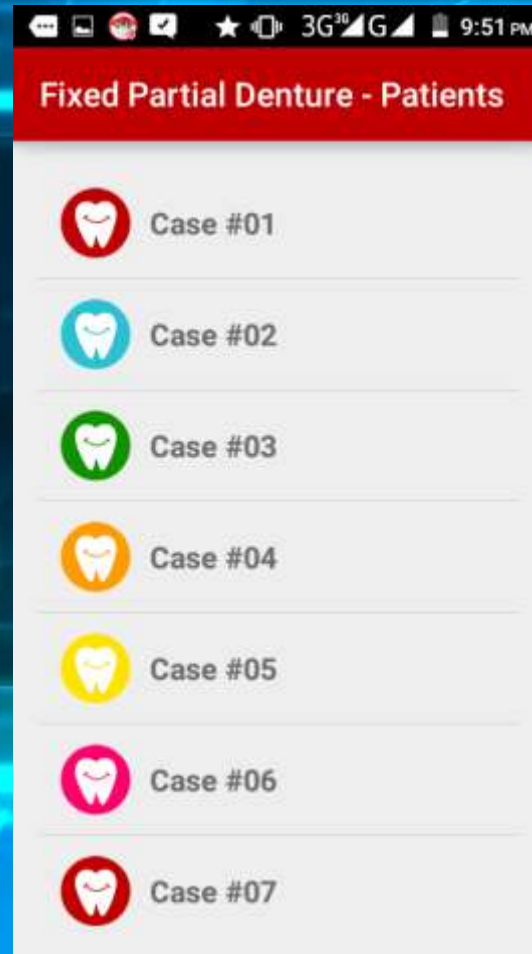
# Home screen



# Screen 2: Selection of category



# Screen 3 : Selection of case



# Screen 4 : Display of case findings


9:50 PM


**Patient 8**


Patient Name  
**Patient 8**

Patient Age  
**81 Years**

Gender  
**MALE**

 Pretreatment Intraoral View

 Chief Complaint



**SUBMIT MY TREATMENT PLAN FOR THIS PATIENT**



# Intra-oral photographs



# Radiographs



# Screen 4 : Treatment plan by the student

The screenshot shows a mobile application interface with a red header labeled "Submit". Below the header, there are three text input fields for "Emergency Treatment", "Pre-Posthetic Treatment (Endo / Perio / Ortho / Surgery)", and "Prosthetic Treatment". At the bottom, there is a section titled "Show Ideal Treatment Plan of" with two orange buttons labeled "CD" and "FPD". The status bar at the top shows the time as 9:51 PM and network status as 3G.

Submit

Emergency Treatment

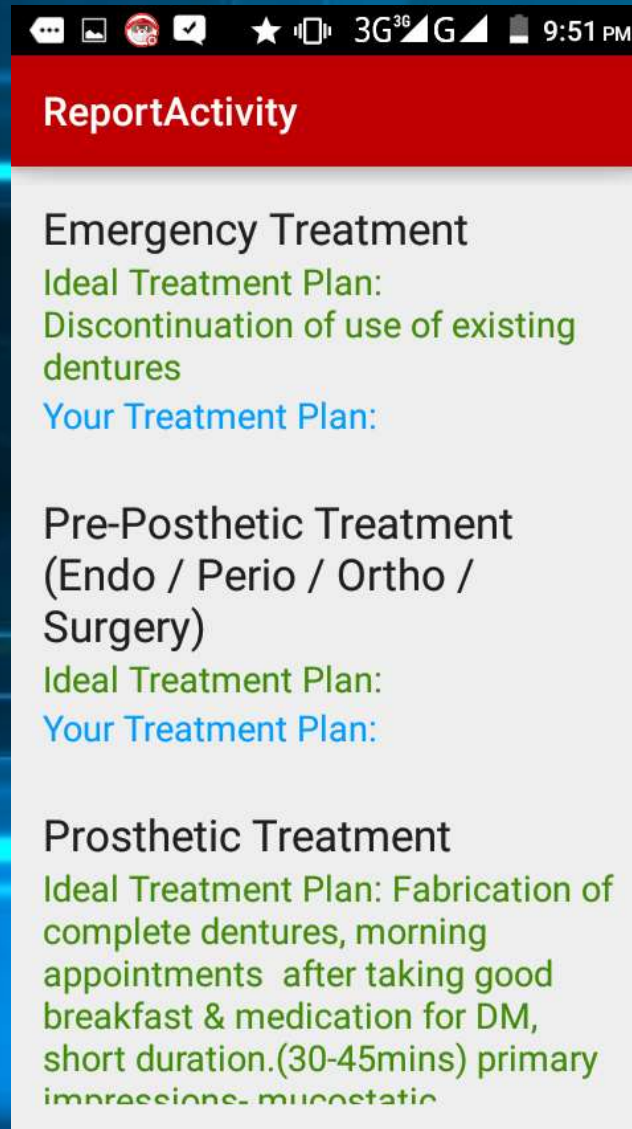
Pre-Posthetic Treatment  
(Endo / Perio / Ortho /  
Surgery)

Prosthetic Treatment

Show Ideal Treatment Plan of

CD FPD

# Screen 5 : display of ideal & student's treatment plan



ReportActivity

**Emergency Treatment**  
Ideal Treatment Plan:  
Discontinuation of use of existing dentures  
Your Treatment Plan:

**Pre-Posthetic Treatment  
(Endo / Perio / Ortho /  
Surgery)**  
Ideal Treatment Plan:  
Your Treatment Plan:

**Prosthetic Treatment**  
Ideal Treatment Plan: Fabrication of complete dentures, morning appointments after taking good breakfast & medication for DM, short duration.(30-45mins) primary impressions- mucostatic

# Our experience

- Implemented since 2013 along-with blended learning module on clinical decision making
- Well received by students
- Improvement in knowledge and practice

