EVIDENCE BASED METHOD OF SELECTING AN IMPLANT SYSTEM FOR DENTAL PRACTICE

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INTRODUCTION

With the growth in the demand for replacement of lost tooth units by fixed options , the field of Dental Implantology has witnessed immense growth. Numerous dental implant manufactures are involved in making root form implants promoting osseointegration concept pioneered by Branemark[1]. Each company has at least four or five designs on offer (Fig1).This situation presents clinician with some daunting task when deciding which implant system will be best for the patients and also for their type of practice.

Manufacturers usually will continually present new claims of improved performance, ease of use, and cost effectiveness .Those clinicians just beginning to employ Implants lack clinical experience on what to base their decisions on and therefore face a greater challenge than an experienced clinician.

This article puts forth an evidence based method for both experienced and inexperienced clinician for selecting appropriate dental implant system for their patients. There are three basic steps:

1. **Check whether the system has clearance from government regulatory body.**
2. **Verify whether the system is approved by national dental association.**
3. **Most important is to determine if the system is validated by publications in peer reviewed literature.**

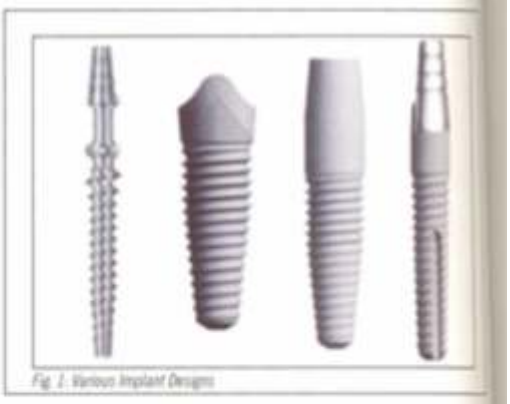

Fig 1: Various Implant Designs

FIRST STEP: WHETHER IMPLANT SYSTEM IS LICENSED BY APPROPRIATE GOVERNMENT AUTHORITY.

All medical devices are classified to allow regulatory bodies to monitor their manufacturing quality and promote guidelines for requisite trials before marketing for use on patients. There are three classes on **basis of control**

CLASS I DEVICES : GENERAL CONTROL : exempt from premarket approval e.g examination gloves, handheld instruments.

CLASS II DEVICES : SPECIAL CONTROLS : e.g infusion pumps ,surgical drapes.

CLASS III DEVICES : PREMARKET APPROVALS involves most stringent regulatory category for devices which support or sustain human life, are of substantial importance in preventing impairment of human health or which presents a potential, unreasonable risk of illness or injury.

e.g endosseous dental implants are classified as class III medical device[2].

In united states food and drug administration,

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