



## The Time Has Come

William R. Laney, DMD, MS, Editorial Chairman

The educational process for modern health care professionals has traditionally started at the university level. The responsibility for assuring minimal standards of professional competence has been generally and willingly accepted by Academe in the university setting. For dentistry, professional education has been based in the University School of Dentistry, where undergraduate and graduate curricula have evolved to a recognized level of sophistication and excellence. If the oral health of North Americans, at least, is any reflection of the quality of dental school products, the formal university-based system has been successful.

Representing the interests of the dental profession at large in the USA, the American Dental Association through its Council on Dental Education and Commission on Dental Accreditation has established standards for the guidance of institutions with programs of dentistry in their curricular offerings. Compliance with these standards is prerequisite to maintaining formal program accreditation. The standards are intended to assure that the graduate of a School of Dentistry has sufficient knowledge and clinical skills to practice dentistry in a manner that will positively contribute to the ongoing oral and systemic health of the lay public.

From time to time, the practicing profession has strayed from these standards because of an enthusiasm spawned by a particular clinical technique, material, or commercial system for treating specific oral conditions. Over the past half century, the field of restorative dentistry, for example, has witnessed periodic waves of heightened interest in denture impression techniques, articulator designs, or specific occlusal schema, oftentimes stimulated by entrepreneurs who may have been more interested in profit than the well-being of the patient. Unfortunately, alloplastic implants, as support for dental restorations, can probably also be included in this category of treatment instrumentology which periodically evolves without adherence to standard or scientifically accepted principle.

Graduates of accredited dental schools should have been exposed to and imbued with such principles, concepts, and practices that can withstand the test of scientific scrutiny and acceptance. If the exposure and indoctrination have been adequate, the beginning dental practitioner should have a background sufficient for making sound judgments regarding the selection and use of specific materials, techniques, or devices for the treatment of particular patient conditions. Currently, there is strong evidence to suggest that in the field of implant dentistry such knowledge and skills are not universally a part of the professional repertoire which the neophyte dentists has and needs to practice high-tech, biologically oriented, state-of-the-art clinical dentistry.

In recent years, the American Dental Association Council on Dental Materials, Instruments, and Equipment began issuing statements of acceptance or provisional acceptance for specific implant systems that meet approval criteria. A premarket approval program for the acceptance of endosseous implants has also been initiated by the US Food and Drug Administration, giving further recognition to the credibility of the implant concept as an acceptable treatment option. Advanced postdoctoral educational programs in oral and maxillofacial surgery, periodontics, and prosthodontics have or soon will have didactic and clinical implant requirements for accreditation. However, in spite of the acceptance of implant-supported restorations connoted in these recognized areas of professional activity, the basic unit of dental education—the undergraduate curriculum—does not as yet uniformly include the fundamentals of implant dentistry as a significant component. Some commonly suggested reasons for noninclusion are the general unpredictability of implants as a restorative modality, an overcrowded curriculum, an inexperienced or disinterested faculty, or the costs involved in adding staff and equipment. For specific institutional settings, one or all of these factors may have been applicable and acceptable rationale in the past.

Because of the paucity of basic implant-related instruction in the undergraduate curriculum, other educational resources have been sought to fill the void. Unfortunately, oftentimes the setting for such short courses or demonstrations is the hotel room, with faculty expertise ranging anywhere from the experienced specialist to an inexperienced salesperson. In any setting, well-staffed, structured short courses or study clubs can provide effective learning experiences for those practitioners who have had previous training and clinical exposure to the implant modality and have some familiarity with basic surgical and restorative procedures. However, *basic principles* and *concepts* should be taught to the uninformed and uninitiated by qualified, academically based personnel whose expertise and clinical experience can provide scientific rationale for diagnosis and treatment procedures.

Within the Schools of Dentistry, existing faculty and departments should be able to provide instruction in such implant-related didactic areas as bone biology, wound healing, interphase physics and chemistry, biomechanics, biomaterials, and soft-tissue physiology. Clinically, oral diagnosis, treatment planning, radiography, principles of surgery, surgery technique, prosthesis design and fabrication, and maintenance procedures can all be addressed from the implant perspective without creating a separate implant curriculum. The *undergraduate* basic course of instruction must be expanded to include the implant concept as a viable restorative treatment option. The time has come to shift the emphasis of teaching this phase of dentistry from the marketplace to institutions of higher learning.