

Proposed Curriculum of Forensic Dentistry

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Abstract

Forensic odontology is specialized branch of dentistry which deals with the study of application of dentistry in forensic as well as legally. Curriculum guidelines for this subject. Two levels of education are outlined; introductory courses are designed to provide general information on forensic dentistry, advanced courses provide a basic level of education with didactic, laboratory, and other exercises applied dentistry, case study to be satisfactorily completed.

Key Words

Forensic Odontology, Dental education, Curriculum.

Introduction

The new millennium has brought many good things in our lives for example a boom in telecommunication and information technology (TeleDentistry) etc. But it has also brought new challenges of terrorism, natural disasters and high rate of crime. Forensic dentistry has become an integral part of forensic medicine over the past 100 years. This has been due to the dedication of people like Amoedo, Gustafson, Sognaes, Keiser-Nielsen and Suzuki, Whittaker, Clement, to name but a few. They established the essential role which forensic dentistry plays mainly in the identification of human remains.

Forensic Odontology or dentistry

It is defined as specialized branch of dentistry in which forensic and legal aspect of dentistry. Forensic dentistry relies on this indestructibility, and its scientific advancement is designed to extract increasing amounts of identifiable information from oral structures, which, more than any other part of the body, mirror the fortunes of the individual concerned.

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Identification of a deceased individual or of a mark left by his or her teeth is the purpose of the forensic dentist. Reduced to its simplest terms, forensic dentistry has only two aims the relatively simple one of identification of the dead and the more complex one of identifying an assailant who has used his or her teeth as weapons.

Statement of purpose

This paper provides guidelines to assure safe and efficacious use of dentistry in forensic and legal point of views. It establishes the standards of education in the use of dentistry in legal and forensic environment and defines standards for the demonstration of competency. It intends to provide guidance to dentist and to reassure the public on the issues of education, competency, and quality of care in use of dentistry in forensic and legal environment. These guidelines do not restrict limit or regulate the application of dentistry in forensic and legal environment.

Educational structure

The goal of curriculum guidelines and standards is to enhance understanding and knowledge to the application of dentistry in forensic and legal. There are two proposed courses of dental education outlined in this document i.e. introductory course that offers general information but does not assess the enrollee's proficiency while standard proficiency course offers a higher level of education including, instruction, hand- on exercises, clinical case studies and examination.

Educational parameters

forensic dentist student must have training with demonstrated proficiency, knowledge and skill for use of dentistry in forensic and legal environment. Training must include specific objectives and requirements described below, with demonstration of knowledge and proficiency. Competency evaluation should include both written and clinical examination.

Technician

Dental auxiliaries or technicians within their scope of education, training and experience must also have specific safety training and demonstrated proficiency in proper dental safety in forensic and legal environment.

Course duration

The course duration depend upon the type of course. In introductory course duration should be 20 weeks, while advanced course duration must be 43 week.

Course name (Award)

F FD (Fellowship of forensic dentistry), awarded should be to an introductory course student, while PGDFD (Post graduate diploma in forensic dentistry) should be awarded to advanced course student.

Scope

Every country should create post of forensic dentists at PHC,CHC,and medical & dental college for identification of person as well as Medico-legal and forensic point of view.

Course Outlines- Identification Methodology

Human identification

Introduction

Identification of bony and teeth fragments

Identification of intact body/body as well burn body part fragments

DNA profiling

Finger printing

Human dental identification

Introduction

Anatomy of teeth

Comparative dental identification

Reconstructive post mortem dental profiling

Forensic DNA profiling methods on oral tissues

Problems with dental identification

BRFO as well as ABFO identification guidelines

Mass disaster

Introduction and brief outline

Body recovery team

Victim identification process and team members

Forensic dental organ identification process and team members

Post mortem dental exam and radiology

Ante mortem post mortem dental record comparison procedures

Body release procedure

Mock mass disaster

Mass disaster dental identification procedure

Disaster guidelines

Practical exercises

Dental Age Estimation

Based on tooth development

Based on post developmental dental changes

Based on biomechanical dental changes

Digital analyzing techniques

Practical exercises

Bite Mark Analysis and Management

Bite Mark Analysis

Description of bite marks

Bite mark recognition

Bite mark registration

Evidence collection on suspects

Comparison methods

Digital analysis of bite mark evidence

Working with Adobe Photoshop

Scanning bite mark photographs

Detecting, correcting photographic distortion

Resizing the photograph

Printing, enhancing, adding text

Scanning suspects' casts

Overlay fabrication

Comparison methods

Practical exercises and mock presentation in courts

Future Suggestions Or Recommendations

1. Topic of forensic dentistry should be included in Dental Curriculum.
2. Forensic Dental Institute should be opened for further development and research.
3. MSc,M.D.S. or Ph.D level degree (in Forensic Dentistry) should be introduced in dental curriculum.
4. Journals (Indian Journal of forensic dentistry) or newspaper / newsletter should be start in order to increase in the knowledge of Forensic dentistry.
5. CDE (Continuing the Dental Education) programme or Workshop/ Training course in Forensic Dentistry should be started.