Aeronautic Dentistry: A New Specialized branch and its Curriculum Guidelines

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Abstract

Aeronautic dentistry is specialized branch of dentistry which deals with the study of application of dentistry in aeronautically environment. Aeronautic dental applications have specific indications and contraindications for use of treatment. A working knowledge of aeronautic basic, applied and clinical dental science is essential. This paper discusses the application of dentistry in aeronautic environment and suggests standard. Curriculum guidelines for this subject. Two levels of education are outlined; introductory courses are designed to provide general information on aeronautic dentistry, advanced courses provide a basic level of education with didactic, laboratory, and clinical excercises applied dentistry clinically case study to be satisfactorily completed.

INTRODUCTION

What is Aeronautic dentistry: It is superspecilization branch of dentistry which deals with the study of dental aspect in aeronautic environment.

Why Aeronautic dentistry is important: It is important because the environment of airplane or mars, atmosphere is different from earth. Sometime pain or bleeding is aggravated in teeth or sudden pain occurs in teeth (root canal treated or any treatment of tooth). This branch not only important for clinical examination of oral cavity treatment but also from forensic or legal point of view.

Statement of purpose: This paper provides guidelines to assure safe and efficacious use of dentistry in aeronautic environment. It establishes the standards of education in the use of dentistry in aeronautic 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 aeronautic environment. These guidelines do not restrict limit or regulate the application of dentistry in aeronautic environment.

Educational structure: The goal of curriculum guidelines and standards is to enhance understanding and knowledge to the application of dentistry in aeronautic dentistry. There are two proposed courses of aeronautic 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: Aeronautic dentist student must have training with demonstrated proficiency, knowledge and skill for use of dentistry in aeronautic 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. Evaluation of competency of students must be assessed by panel of examiners.

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 aeronautic environment.

Dental student must have a knowledge of basic aeronautic physics, and specific safety requirement for the dental treatment area in this environment. Students must know to demonstrate the treatment objective. They must have demonstrated knowledge of appropriate settings to attain emergency or specific treatment outcomes supported by research.

Course duration: The course duration depend upon the type of course. In introductory course duration should be 18 weeks, while advanced course duration must be 36 week.

Course name (Award) : FAD (Fellowship of aeronautic dentistry), awarded should be to an introductory course student, while PGDAD (Post graduate diploma in aeronautic dentistry) should be awarded to advanced course student.

Scope. Every country should create post of dentists aeronautic at every Airport for examination of dentition (before, during, after journey) for safety as well as Medico-legal and forensic point of view.

COURSE OUTLINES

INTRODUCTORY COURSE

1. Introduction
    a. Self-graded pre-test (a must)
3. Fundamentals of aeronautic physics (brief)
4. Effect of Aeronautic environment on teeth and oral cavity.
5. Infection control.
6. Emergency treatment during or before the journey.
7. Prevention of pain and bleeding.
8. Indication and contraindication of treatment
9. Medico-legal or forensic aspects.
10. Post test examination

ADVANCED COURSE

1. Introduction
    a. Self graded pre-test (a must)
3. Fundamentals of Aeronautic physics (brief)
4. Infection control
5. Prevention or management of Dental emergency.
6. Safety of dental treatment
7. Effect of aeronautic environment on teeth and oral cavity.
8. Differences in treatment modalities in aeronautics.
9. Pain, and bleeding, prevention and management.
10. Indication or contraindication of dental treatment.
11. Precaution measures: during, after, before the journey.
12. Complication of treatment.
13. Medico-legal or forensic aspects: dental records keeping, creation and maintenance of dental database.
14. Current and future research and development programs.
15. Short project report (on any topic of aeronautic dentistry)
16. Dissertation
17. Post-test examination :
    a. clinical stimulation
    b. clinical case-studies
    c. written post test

FUTURE SUGGESTIONS OR RECOMMENDATIONS

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

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References

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