COURSE DESCRIPTION

Due to their potential for producing life-threatening systemic adverse reactions, a thorough knowledge of the pharmacological and clinical properties of local anesthetic agents is essential for their safe and effective use. This program will provide participants with an overview of the pharmacology and therapeutic uses of local anesthetic agents.

Course Outline

I. Local Anesthesia Pharmacology Basics
   A. Neuroanatomy
   B. Neurophysiology
   C. Biochemistry and Mechanism of Action

II. Review of Intralental Local Anesthetic Preparations
   A. Local Anesthetic Agents for Injection
   B. Local Anesthetic Agents for Topical Use

III. Vasoconstrictors
   A. The Medically Complex Dental Patient
   B. Treatment Modifications
   C. Patient Care Planning

Learning Objectives

Upon successful completion of this course, participants will be able to:

- Explain the basic concepts of neurophysiology and nerve conduction and the mechanism of action of local anesthetic agents
- Differentiate between the two major classes of local anesthetic agents with respect to their distribution, metabolism, and routes of excretion
- Discuss the rationale for the use of vasoconstrictors in local anesthetic preparations
- Specify the various local anesthetic agent combinations most commonly used in dentistry and the rationale for their use in specific clinical situations
- Discuss the significance of adverse effects, contraindications, and patient care considerations with the use of local anesthetics.

Pharmacology and Therapeutics of Local Anesthesia: An Overview & Update

COURSE DESCRIPTION

According to the DEA, cannabis remains a Schedule 1 substance. As such, it is considered to have no accepted medical use and, thus, it is illegal to possess. Yet, the United States has seen a clear, broad-based trend toward state-level decriminalization of cannabis, with almost every state enacting legislation aimed at legalizing and/or decriminalizing cannabis for medical and/or recreational usage. Notwithstanding this rise in social and legal acceptance, public health concerns regarding the use of cannabis remain, especially among dental professionals, since the major routes of administration of cannabis involve the oral cavity. This program will introduce dental professionals to the most current information regarding the pharmacology of cannabis, including its various dosage forms, routes of administration and adverse effects. Special emphasis will be placed on the effects of cannabis use on oral health and dental treatment, as well as the proposed use of cannabis in dentistry for the management of patient anxiety and odontogenic pain.

COURSE OUTLINE

V. Cannabis Basics
   A. History
   B. Types of cannabis
   C. Legal Status
   D. Proposed Uses in Dentistry

VI. Clinical Pharmacology
   A. Mechanism of Action
   B. Drug-Receptor Activity
   C. Endocannabinoids
   D. Routes of Administration
   E. Available Formulations

VII. Pharmacologic Effects
   A. CNS Effects
   B. Respiratory Effects
   C. Gastrointestinal Effects
   D. Immunological Effects
   E. Effects on Other Organ Systems

VIII. Clinical Considerations
   A. Adverse Reactions
   B. Interactions with Medications
   C. Interactions with Dietary Supplements
   D. Controversial Issues

IX. Dental Considerations
   A. Effects on the Oral Cavity
   B. Effects on Dental Treatment
   C. Treatment Modifications
   D. Patient Care Planning

LEARNING OBJECTIVES

Upon successful completion of this program, participants will be able to:

- Discuss the history and various types of cannabis, as well as its current legal status and proposed uses in dentistry
- Describe the pharmacology of cannabis, including its mechanism of action, routes of administration and available dosage forms
- Identify the pharmacological effects of cannabis on major organ systems
- Explain the clinical considerations of cannabis use, including adverse reactions, drug interactions, contraindications
- Explore the dental considerations of cannabis, including effects on dental treatment, potential treatment modifications, and patient care planning.

Appropriate Prescribing Practices for Opioid Analgesics in the Dental Office

COURSE DESCRIPTION

Management of acute dental pain is accomplished with the use of non-opioid and opioid analgesics. However, this normally occurs outside the dental office, away from the immediate supervision of the clinician, who is often faced with the difficult task of managing patient pain while also avoiding adverse outcomes for both the patient and their communities. Thus, it is critical for clinicians to be able to accurately identify the need for pain control, individualize patient care based on this need as well as associated risks, assess the efficacy of analgesic agents prescribed and monitor for their appropriate use. This program will provide participants with an overview of the pharmacology of pain control and the effective management of acute dental pain resulting from non-opioid and opioid analgesics. Special emphasis will be given to appropriate prescribing practices for opioid analgesics.

COURSE OUTLINE

X. The Concept of Pain
   A. Pain Threshold and Pain Tolerance
   B. Psychosocial and Emotional Factors
   C. Pathophysiologic Factors

XI. Identification of Opioid Addiction
   A. Techniques and Cues For Identifying Opioid Abuse
   B. Strategies For Managing Opioid-Abusing Patients

XII. Management of Acute Dental Pain - Non-opioid Analgesics & Acetaminophen (APAP)
   A. Clinical Pharmacology
   B. Equianalgesic Doses
   C. NSAIDs
      1. Mechanism of Action
      2. Pharmacologic Effects
      3. Clinical Considerations - Adverse Reactions, Drug Interactions & Contraindications

XIII. Management of Acute Dental Pain - Opioid Analgesics
   A. Clinical Pharmacology
   B. Available Formulations
   C. Codeine, Hydrocodone, Oxycodone
      1. Mechanism of Action
      2. Pharmacologic Effects
      3. Clinical Considerations - Adverse Reactions, Drug Interactions & Contraindications

XIV. Appropriate Opioid Prescribing Practices
XV. Preventing Opioid Abuse and Diversion

LEARNING OBJECTIVES

Upon successful completion of this program, participants will be able to:

- Describe the pharmacology and mechanism of action of non-opioid and opioid analgesics, as well as their potential for abuse
- Explain the intended role of non-opioid and opioid analgesics in the treatment of dental pain, as well as situations which may preclude their use
- Describe strategies useful in developing a pain management plan that is individualized for a patient’s needs and underlying medical conditions
- Understand appropriate prescribing practices to utilize in everyday clinical situations

"The educational teaching methodology used in this course is live lecture presented in concert with an accompanying PowerPoint presentation. Both the live lecture and the PowerPoint presentation incorporate a variety of audio and visual cues to enhance audience member understanding and retention of key concepts. In addition, audience participation will be encouraged and facilitated by group discussions as well as question and answer periods for the completion of each section of the live lecture."