

CONTINUING EDUCATION

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Learning Objectives

After completion of this exercise, the participant will be able to:

1. Discuss the growth in orthodontic case starts and gross income over the past two years.
2. Contrast various methods of treating skeletal Class III malocclusions.
3. Describe the use of three-dimensional metrology software to analyze treatment outcomes.
4. Recognize the common symptoms of numb chin syndrome.

Article 1

Kravitz, N.D.; Vogels, D.S. III; and Vogels, P.B.: *2023 JCO Orthodontic Practice Study* (pp. 709-723)

1. The percentage of respondents reporting an increase in gross income during the previous calendar year was:
 - a) lower than in the 2021 Study
 - b) similar to the 2019 Study
 - c) the lowest since the 2017 Study
 - d) the highest in the history of these studies
2. Expectations for increased case starts and gross income in the following year were:
 - a) higher than in the 2021 Study
 - b) similar to the 2019 Study
 - c) the lowest since the 2017 Study
 - d) the highest in the history of these studies
3. Compared with nationwide median salaries for dental assistants, median staff salaries over the past three JCO Practice Studies have:
 - a) lagged well behind
 - b) tracked about the same

- c) risen well ahead
 - d) none of the above
4. The only variable with a statistically significant relationships to new-patient consultations in all five studies since 2015 was:
 - a) measurement of staff productivity
 - b) text messaging
 - c) employment of a dedicated full-time treatment coordinator
 - d) separate fee for cosmetic/laser treatment

Article 2

Carlucci, A.; Lombardo, L.; Barbara, L.; Cremonini, F.; and Palone, M.: *Treatment of Skeletal Class III Malocclusion in Adolescents Using Miniscrew-Supported Orthopedic and Fixed Orthodontic Appliances* (pp. 735-746)

5. Traditionally, early treatment of a skeletal Class III involves a combination of a rapid palatal expander and:
 - a) Class III elastics
 - b) a protraction facemask
 - c) a lip bumper
 - d) fixed appliances
6. The skeletal Alt-RAMEC approach should be reserved for patients with:
 - a) skeletal malocclusions
 - b) no need for maxillary expansion
 - c) little remaining growth
 - d) hyperdivergent facial patterns
7. The miniscrew-assisted palatal expansion (MAPA) protocol is used for:
 - a) disarticulation of the circummaxillary sutures in adolescent patients

- b) digital design of miniscrew positions
 - c) matching of a lateral cephalogram with digital models
 - d) 3D printing of a surgical insertion guide
8. Adolescent females have a better prognosis than males for Class III treatment because:
- a) their adolescent growth spurt stage is finished earlier
 - b) their malocclusions tend to be milder
 - c) they tend to cooperate more reliably with facemask therapy
 - d) all of the above

Article 3

Giulieri, C.; Weir, T.; and Freer, E.: *Use of 3D Metrology Software to Analyze Aligner Treatment Outcomes after Lower-Incisor Extractions* (pp. 747-758)

9. Indications for lower-incisor extractions include any of the following except:
- a) severe lower anterior crowding with minimal upper anterior crowding
 - b) severe overbite and overjet
 - c) little remaining growth potential
 - d) poor prognosis for a lower incisor
10. Negative sequelae of lower-incisor extractions may include:
- a) an interarch tooth-size discrepancy
 - b) increased overbite and overjet
 - c) noncoincident dental midlines
 - d) any of the above
11. The 3D metrology software used by the authors was:
- a) Geomagic Control X
 - b) ClinCheck

- c) Dolphin 3D
 - d) Appliance Designer
12. The metrology software can be used to generate a vector analogous to the:
- a) direction of force
 - b) ClinCheck prescription
 - c) long axis of a tooth
 - d) curve of Spee

Article 4

Jayaraman, S.; Noble, J.; and Kravitz, N.D.: *Numb Chin Syndrome* (pp. 760-762)

13. Numb chin syndrome is a mental-nerve neuropathy characterized by:
- a) anesthesia or paresthesia of the anterior teeth
 - b) anesthesia or paresthesia over the chin and lower lip
 - c) tingling in the TMJ region
 - d) trigeminal neuralgia
14. The mental nerve is the terminal branch of the:
- a) trigeminal nerve
 - b) maxillary nerve
 - c) superior alveolar nerve
 - d) inferior alveolar nerve
15. Mental-nerve neuropathy is usually caused by:
- a) congenital disorders
 - b) medical conditions
 - c) odontogenic conditions
 - d) orthodontic treatment
16. The risk of developing acute lymphoblastic leukemia is highest in:
- a) children younger than 5
 - b) children in the mixed dentition
 - c) young adults in their mid-20s
 - d) elderly adults