Learning Objectives

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

1. Contrast results of the 2014 JCO Study of Orthodontic Diagnosis and Treatment Procedures to those of previous surveys.
2. Discuss protocols for treating various types of patients in the mixed dentition.
3. Describe SureSmile's digital diagnostic and finishing technologies.
4. Compare options for treatment of fused or geminated incisors.

Article 1

Keim, R.G.; Gottlieb, E.L.; Vogels, D.S. III; and Vogels, P.B.: 2014 JCO Study of Orthodontic Diagnosis and Treatment Procedures (pp. 607-630)

1. Routine or occasional usage of cone-beam computed tomography increased from 22% in the 2008 Study to:
   a) 28%
   b) 59%
   c) 69%
   d) 94%
2. Routine or occasional usage of Roth pre-adjusted prescription appliances declined from 53% in the 2008 Study to:
   a) 31%
   b) 42%
   c) 45%
   d) 51%
3. The median number of wires used in each arch for a typical extraction case remained at:
   a) three
   b) four
   c) five
   d) six
4. Among respondents who used more than one implantation site for skeletal anchorage, the median number of cases treated with miniscrews in the past 12 months was:
   a) three
   b) four
   c) eight
   d) 10

Article 2

Keim, R.G. and McNamara, J.: JCO Interviews Dr. Jim McNamara on Early Orthodontic and Orthopedic Treatment (pp. 631-638)

5. If a digital habit is noted during the initial examination of a young patient, Dr. McNamara recommends:
   a) having the patient sign a contract to give up the habit for one week
   b) asking the patient to give up the habit for one year
   c) having the patient call the office daily to report on progress
   d) putting the patient on observation until the habit has ceased
6. The optimal time to correct a significant Class II malocclusion orthopedically is:
   a) before puberty
   b) at cervical stage CS3
   c) at cervical stage CS4
   d) immediately after eruption of the permanent
maxillary central incisors
7. A removable lower Schwarz appliance is typically activated:
   a) twice a day
   b) once a day
   c) twice a week
   d) once a week
8. In 20-25% of patients who have undergone expansion during Phase I, Dr. McNamara uses:
   a) no Phase II treatment
   b) a Pendex appliance in Phase II
   c) a U6 expander in Phase II
   d) a utility arch in Phase II

Article 3

Schechtman, R.L.: *Treatment Planning for Orthodontic-Restorative Cases with SureSmile Technology* (pp. 639-649)
9. SureSmile diagnostic simulations are based on data from:
   a) the handheld OraScanner
   b) lateral cephalograms
   c) a therapeutic scan of the dentition and bracket positions
   d) all of the above
10. SureSmile’s tooth-measurement function includes a calculation of:
    a) the required finishing archwire bends
    b) the Bolton ratio
    c) the Tweed arch-length analysis
    d) the visual treatment objective
11. Before robotic fabrication of finishing archwires, the SureSmile protocol requires:
    a) digital scans of new study casts
    b) progress lateral cephalograms
    c) a therapeutic scan of the dentition and bracket positions
    d) the completion of planned tooth movements
12. The accuracy of space measurements from traditional diagnostic wax setups is hampered by:
    a) the thickness of the coping-saw blade
    b) any errors that accumulate during treatment
    c) archwire changes for leveling and alignment
    d) both a and b

Article 4

Finkelstein, T.; Shapira, Y.; Bechor, N.; and Shpack, N.: *Surgical and Orthodontic Treatment of a Fused Maxillary Central Incisor and Supernumerary Tooth* (pp. 654-658)
13. A fused tooth usually has:
   a) two root canals and two pulp chambers
   b) two root canals and a single pulp chamber
   c) a single root and two root canals
   d) a single root canal and a single pulp chamber
14. Treatment options for fused teeth include all of the following except:
    a) orthodontic correction followed by subgingival scaling and root planing
    b) selective interproximal grinding to reduce the crown’s mesiodistal width
    c) extraction followed by orthodontic correction
    d) surgical hemisectioning and endodontic treatment followed by orthodontic correction
15. In the maxillary arch, the most commonly fused teeth are the:
    a) deciduous incisors and canines
    b) permanent central and lateral incisors
    c) first and second premolars
    d) second permanent molars
16. Tooth fusion may be caused by:
    a) traumatic physical pressure
    b) genetic predisposition
    c) syndromes such as chondroectodermal dysplasia
    d) any of the above