After completing this course, the participant will have:
1. Familiarity with evidence in the literature that compares the efficacy of using cone-beam computed tomography vs conventional radiography in localizing impacted maxillary canines.
2. An appreciation for the therapeutic outcome by using either Invisalign or fixed appliances to treat mild to moderate malocclusion.
3. An awareness of a new measure—midpalatal suture density ratio that uses cone-beam computed tomography—to predict a patient’s response to rapid maxillary expansion.
4. Knowledge about the minimum wear time required for a Van Beek activator to achieve substantial correction of a Class II malocclusion.

**Article 1: Cone-beam computed tomography vs conventional radiography in visualization of maxillary impacted-canine localization: A systematic review of comparative studies, by Ehsan Eslami et al**

1. The objective of this systematic review was to assess the comparisons between cone-beam computed tomography (CBCT) and conventional radiography in the localization of maxillary impacted canines.
   True
   False
2. The initial review included 785 articles; after thorough screening, only 8 articles met all the inclusion and exclusion criteria.
   True
   False
3. The authors concluded that the systematic literature review supports CBCT as more accurate than conventional radiographs in localizing maxillary impacted canines.
   True
   False
4. The authors reported robust evidence to support using CBCT as a first-line imaging method for impacted maxillary canine evaluation.
   True
   False

**Article 2: Evaluation of Invisalign treatment effectiveness and efficiency compared with conventional fixed appliances using the Peer Assessment Rating index, by Jiafeng Gu et al**

5. The purpose of this prospective case-control study was to compare the treatment effectiveness and efficiency of the Invisalign system with conventional fixed appliances for orthodontic patients with mild to moderate malocclusion in a graduate orthodontic clinic.
   True
   False
6. The sample comprised 48 patients treated with either Invisalign or fixed appliances.
   True
   False
7. The authors reported that the final occlusal scores from the weighted Peer Assessment Rating index did not differ between Invisalign patients and fixed appliance patients.
   True
   False
8. The authors concluded that fixed appliances improved the malocclusion more effectively than did Invisalign.
   True
   False
Article 3: Midpalatal suture density ratio: A novel predictor of skeletal response to rapid maxillary expansion, by Thorsten Grünheid et al

9. The aim of this study was to determine whether a novel measure of midpalatal suture maturity, the midpalatal suture density ratio, can predict the amount of sutural expansion that can be expected from palatal expansion.
   True
   False
10. Each of the 30 patients in the sample was treated with Haas-type maxillary palatal expansion.
    True
    False
11. The authors reported that the results suggest that the midpalatal suture density ratio has a significant negative correlation with the amount of long-term maxillary skeletal expansion achieved from rapid maxillary expansion at the level of the palate.
    True
    False
12. The authors concluded that the midpalatal suture density ratio has the potential to become a useful clinical predictor of the skeletal response to rapid maxillary expansion.
    True
    False

Article 4: Overjet reduction in relation to wear time with Van Beek activator combined with a microsensor, by A. S. A. Al-Kurwi et al

13. The aim of this study was to use a microsensor to investigate the association among overjet reduction, treatment duration, and wear time of the Van Beek activator.
    True
    False
14. The evaluation period was limited to the first 3 appointments or approximately 5 months.
    True
    False
15. The authors reported that the median daily wear time of the total sample over the total evaluation period was 9.77 hours per day.
    True
    False
16. The authors concluded that a substantial overjet reduction was achieved with a daily wear time of 8 hours or more in at least 5 months with the Van Beek activator.
    True
    False