2014 NEXT Dental Survey Webinar Q&A

Thank you for your interest in participating in this NEXT survey of dental radiography. Resources you will need, including the survey data form, can be found at the CRCPD website: [www.crcpd.org](http://www.crcpd.org).

At the main page, follow the links: *Medical radiation* -> *NEXT* -> *NEXT webinar*.

1. **How many facilities do you want us to survey?**
   *This varies, based on the population of your state. The list can be found at:* [http://www.crcpd.org/NEXTwebinar.htm](http://www.crcpd.org/NEXTwebinar.htm) under State Survey Contact Information

2. **What are the dates of the survey?**
   *We would like you to begin surveying as soon as you have your phantom. The deadline from finishing the survey is December 1, 2014.*

3. **Line 15 asks for the number of units. Is that the number of machines or tubes?**
   *This is the number of x-ray units.*

4. **What does DAP mean & is it a post exposure measurement?**
   *Dose area product (DAP) is a quantity used in assessing the radiation risk from diagnostic x-ray examinations and interventional procedures. It is defined as the absorbed dose multiplied by the area irradiated, expressed in gray square centimeters (Gy·cm²) or sometimes mGy·cm² or cGy·cm². This quantity can be displayed either pre-exposure (as an estimate based on configured technique/scan factors) or post-exposure.*

5. **How do we request a dental phantom?**
   *Send an email to david.spelic@fda.hhs.gov. Your facility may be able to obtain more than one phantom if your state has a large number of surveys to do.*

6. **How many units do you want us to survey at each facility?**
   *You will survey 1 intraoral unit at each facility. Survey the most frequently used unit at the facility. If the facility has both hand held and stationary units to take intraoral x-rays with, please survey the hand-held unit, even if it is not the most commonly used unit. This will help us gather enough data on these units to do meaningful statistics. If the facility also has a panoramic and or CBCT unit, you will ask the survey questions for that unit.*

7. **For scoring digital images of the phantom, can one adjust the computer settings, such as contrast?**
   *Please score the phantom images under the facilities normal viewing conditions. You can ask facility staff to do any routine image adjustments they would normally do for patient x-rays before you score the number of meshes.*

8. **So we don’t have to test CBCT and panoramic x-rays? Just gather info?**
   *That is correct, you are only asked to gather information for the survey on CBCT and panoramic units.*

9. **There are no images being captured to forward to NEXT, correct?**
   *The surveyor will be the only individual scoring the image?*

10. **Shall we classify the i-CAT as a CBCT?**
    *Instrumentarium claims that it is “cone beam”.*

    *For the purposes of this NEXT survey, please indicate the i-CAT family of x-ray units to be Cone Beam CT units. These provide 3-D (i.e. Volumetric) and tomographic-like images, and therefore are more characteristic of CBCT.*
Please note also that there are several models of the i-CAT collection of x-ray equipment. Please include the model number, e.g. "i-CAT FLX". You can visit www.i-cat.com to view their product information.

11. How do we fill in the empty slots if there is information the facility doesn’t want to share?
   Leave them blank and include any comments in the comment section on that page.

12. For question # 33, do you want the number of images per week or per study?
   Please enter the average number of images they take per patient x-ray exam.

13. If we have 6 inspectors, do we need six phantoms and cradles?
   No, most states with fewer inspectors will also have fewer surveys to conduct. We anticipate each inspector will conduct one or two surveys and then pass the phantom and cradle to the next inspector in their state. Since we have 4 months to complete the surveys, we do not anticipate this will be a problem. However if you find it logistically difficult to complete your designated number of surveys within this timeframe without the use of extra phantoms, contact David Spelic via email (above) and arrangements will be made to provide additional phantoms.

14. Can I get any of my inspectors to do these surveys or just persons participating in the webinar training?
   Any state inspector that is competent to conduct solo inspections at a dental facility can conduct the survey. Please have any inspector who will conduct these surveys to first view a recorded copy of the webinar at www.crcpd.org

15. In some sections of the survey form, you request that adolescents and adults be reported separately. In items B9 & B11 of the CBCT section, do you want them combined?
   Yes, for items B9 & B11, combine any adolescents with permanent dentition and adults for the survey results. Note: Only in the intraoral section are adults separated from adolescents, and this is just for the number of exams. For the equipment technique settings (pan and CBCT) we combine adolescents and adults because we don’t expect there to be any appreciable differences between teens and adults.

16. You use the terms “pediatric” and “child”. Is this anyone under 18?
   For the purposes of this survey, a pediatric or child patient is anyone that still has transitional dentition or “baby teeth”. Anyone under the age of 18 that has permanent dentition (no more “baby teeth”) will be considered an adolescent with permanent dentition.

17. In the CBCT section, there are references to FOV and DAP. Can you give an example of how this will be displayed, i.e. voxel size, area #cm x #cm?
   FOV (field-of-view) is typically expressed as an area, e.g. “8 cm x 8 cm” or similar. You can visit the website http://www.3dorthodontist.com/CBCT_Machines.html to get a general idea of the broad variation in FOV’s and voxel sizes for different CBCT systems currently in clinical use (NOTE we have not validated any values from this website- it is for general information purposes only)
   DAP (dose-area product) may have different units, such as mGy-cm², or Gy-mm².

18. Should we attempt to choose facilities so that we have at least one of each of the 3 types of units: hand-held, CBCT or panoramic?
   If you know of facilities that currently have these units and they are up for a routine inspection, please survey such sites- this helps increase the sample size for these types of equipment so that good statistics can be derived. This study is designed to sample the current state of practice at dental facilities across the nation and we are aware that a large portion of the dental facilities may not have any of these units.
19. For the intraoral section, do you want us to place our detector against the x-ray tube cone? Please have the facility assist you in setting up the dental cone in the same manner they would use to conduct intra-oral images. Please measure the distance from the focal spot indicator on the tube head to the position where the patient’s cheek would be (item 37). This means there may be a gap between the end of the cone and where the patient’s cheek is located. Please also position your detector at this same location. This ensures you are measuring the entrance skin exposure (ie. no inverse-square correction is needed).

20. What if they don’t change their settings for children? We would like you to use and record the setting that the facility actually uses for both children and adult imaging. If they don’t change, then you simply enter the same values for both adults and children. But please do NOT leave the values blank.

21. What about facilities that use a Rinn’s unit. Should we test with the Rinn unit in place? We recommend you should first install this device to aid in measuring the distance from the focal spot to the location of the patient’s skin entrance (cheek). After this measurement, you can remove the Rinn positioning device and use the NEXT dental cradle (or other convenient item) to configure the x-ray tube and detector to represent clinical conditions.

22. Do you want the original settings or corrected, reduced settings? Please use the original settings that the facility was using when you arrived for the inspection/survey.

23. On the picture of the phantom, was that the digital detector taped to the back of the phantom? Yes. You may see the edges of tape on the digital image, but this should not impact on the visibility of the meshes (these are high contrast test objects).

24. Scoring the phantom; is it the number of meshes I can see? In the example image shown in the slides, 3 of the 4 mesh patterns are visible, should you would enter a “3” for the number of mesh patterns. You should clearly see a rectangular pattern in order to score a mesh.

25. Our state uses the Piranha survey meters and these units have a feature called QHVL (for Quick HVL). Can I use this to capture HVL during the NEXT survey? Although in general solid-state based survey meters can reliably capture HVL with a single exposure, we recommend specifically for the Piranha meters that surveyors do NOT use the QHVL feature. We are aware of issues in some states associated with the use of this feature, and believe that until we receive further clarification on the performance of the QHVL feature, that states use the standard methodology (aluminum filters) to estimate HVL. If this changes we will issue a communication to surveyors. If this method is also not an option during your surveys please leave the HVL entry field blank.

**General Note on measuring HVL:** Surveyors should verify that their solid-state survey meter can accurately capture HVL for the types of dental units encountered during this survey, notably single-phase intraoral x-ray units. Most meters require the selection of certain modes of operation to ensure accurate display values, particularly for HVL.

26. Why is the NEXT survey targeting hand-held units? When we did the last NEXT Survey for Dental, hand-held units were not on the market. NEXT is not specifically targeting hand-held units, but if they are being used to image dental patients, we would like to collect information on them.

27. On item #39, what if the detector is placed in the patient’s mouth and no one “holds” it? Indicate the patient holds the detector.
28. For clarity’s sake, each site will have a spreadsheet, correct? 
   Yes, each facility survey will be entered on a separate Excel NEXT Survey Data Form and saved with identifiers 
   that are unique to that facility.

29. Most facilities have dedicated units for children and adults. Do we collect data for both units? 
   You will collect data for the one unit that the facility uses the most, regardless if this is dedicated to children or 
   adults.

30. Can we use the state registration number? 
   If it helps you to distinguish between locations, you can use the state registration number in addition to the 
   facilities name. Example: TX Jon Howell, DDS, R12345-000.xls

31. How do we distinguish from multiple facilities that have the same name? 
   You can include the name of the street the facility is located on in the file name. Example: TX Jon Howell, DDS, 
   South Main Street.xls