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Your H.A.R.P. specialists in Ontario since 1985
DENTAL FIX™ Service & Equipment
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DIGITAL DAILY QUALITY CONTROL DATA SHEET

A QC log should be kept operatory that is using digital radiography, similar to that used for photographic QC. It should include **number of type of exposures used daily** (ie. 5 bw's, 3 pans), the type of **maintenance** performed. Any retakes and why should also be logged. Daily step wedges are also recommended using consistent technique. Please call us for more info.

- Photocopy this sheet and put **month, year** and **RM ID** in box
- These records (and X-Ray testing records) must be saved for 6 years

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	REPEAT %
						Total takes IOL: ___ Total retakes: ___ %age: =__%
						Total takes IOL: 90 Total retakes: 4 %age:4/90=4.4% Pan: ¼=25% Ceph: 0%

pan – patient moved
IOL – mis- alignment

Varanidex: Your **HARP QC** Specialists

TIPS FOR DIGITAL DAILY QC

1. Record all exposures of all types taken. If a retake is required circle it and provide an explanation on a sidenote. If you have a multiple x-ray facility you can use one page for each x-ray room and another for Pan/ceph if required.

2. Use the space to note any service done to the sensors or equipment on that day and if a stepwedge was taken.

3. Stepwedges should be taken at a regular interval using the identical testing technique so multiple shots can be compared. A stepwedge first thing in the morning is a good way to confirm that everything is working the way it is supposed to and you are ready for the day. If the stepwedge radiograph looks different than previous ones – there are a number of possible reasons. Confirm that the testing technique is the same, and that you are using the same digital sensor. If the image is of a poor quality, try repeating the exposure using a different sensor if you have more than one. If the repeat looks good – you have isolated the problem to the sensor. If the image looks the same as the first, the chances are that the problem lies in the software or with the x-ray machine. Try taking an step wedge on a different x-ray machine. The radiographs may not look exactly the same, but if there is a consistent problem seen then you can probably rule out the x-ray machine and have narrowed it down to the software.

4. If you are using a Scan-X style of phosphor plate transfer, record the serial number of each plate and make sure with step wedges that the same plate is being compared. These plates have a recommended life cycle, so keeping track of the total number of shots using each plate can help plan when new plates will be required.

*Tips for reducing exposure: **Film based offices***

• For those offices using film based radiography – switching from D speed film to I speed film will reduce the exposure by at least 50%. This is beneficial to your patients and decreasing the workload of the x-ray tube heads will extend their life cycle. The quality of the I speed film matches that of the D speed film.

• Trading up to digital sensors from film based. This will also reduce the patient exposure and workload of your tubeheads, even if you are already using I speed film. Many of my clients were nervous about making the change, but very few regretted it. The software is generally very user friendly. There is often a cost in IT upgrades as well as the cost of the digital sensor. Feel free to call for further info.

• Normalizing the output of your equipment. – if you are using x-ray equipment that is of the same kV – usually it is appropriate that the output be similar. This can at times lead to significant reductions with no loss of diagnostic quality.

*Tips for reducing exposure: **Digital and Phosphor Plate Based Offices***

• Normalizing exposures. the signal processing software that comes with most digital sensor packages now mean that an image can look the same after processing whether it was shot at a high exposure or a low exposure. Frequently we can see an x-ray output in one operatory that can be twice or three times the amount in another operatory. Often there is no reason to expose at the higher value.

• Rectangular collimation – sharper image and often an immediate 30% reduction in exposure. There can be a bit of practice before the practice is mastered.

• Typical digital values for 60 and 70 kV machines both phosphor plate and direct digital should be around 100 mr or less. Call us if you want to discuss this further.