

ALD 2010
Recommended Guidelines for Clinical Photography
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- Observe good clinical practice:
 - Ensure protective eyewear is worn
 - Adhere to all relevant safety measures
 - Wear examination gloves
 - Apply rubber dam as appropriate
 - Employ other techniques as necessary.
- Take intraoral photographs in the landscape mode of camera orientation. For extraoral photographs, use portrait mode.
- For intraoral photography, use a camera with a macro lens or facility with the ability to produce 1:1 images. In general, use the smallest aperture to maximize depth of field.
- Calibrate the camera system to determine and become familiar with the optimal settings for intraoral and extraoral photographs.
- Clean the target site of debris, excess saliva, blood, air bubbles, impression material, excess cement, glove powder before taking photograph. Target area should be moist but not desiccated. Change surgical drapes as needed to avoid bloodstained images.
- Isolate the target site (include only what is necessary in photograph)
 - Use clear plastic retractors as appropriate to afford an unrestricted view of the target area. Position the retractors symmetrically to avoid the appearance of a canted image. Pull the retractors out and away before taking the picture.
 - As needed, use a black spatula to prevent coverage of the front teeth by the lips. Position any contrasting device so that it does not create a shadow.
 - Use a high-quality mouth mirror as appropriate to view the target area. Control fogging by dipping mirror into hot water then drying it with a soft tissue. Alternatively, use a light stream of air from the air syringe to keep the mirror from fogging.
 - Keep the patient's nose out of a palatal view of maxillary incisors.
 - Avoid beard hairs.
 - Retract the tongue with a mirror or have the patient move the tongue to the posterior so as not to obscure the teeth.
 - It is helpful, but not mandatory, to include the laser handpiece in the intraoral view. The laser need not be operating when this "During Procedure" picture is taken.
 - Keep fingertips, mirror edges, and retractors out of the picture as much as possible. If patient assists in holding retractors, have patient wear examination gloves.
 - It is suggested to obtain slightly larger image frames to allow cropping as necessary.

- Ensure optimum visualization, lighting and exposure
 - As much as possible, keep viewpoint, positioning, lighting, color, magnification, perspective, contrast, and background the same. Standardize photographic conditions so that direct comparisons are possible, even if successive photographs are taken by different photographers over long time intervals.
 - Photograph the teeth in correct axial alignment (for example, the occlusal plane should be parallel to the horizontal in the photograph, not canted).
 - Align the optical axis perpendicular to the row of teeth to be photographed to maximize consistency and depth of field.
 - Long-handled, front-silvered, glass mirrors are preferred.
 - When using mirrors, try to photograph the mirror image only. Frame the image so that lips and mirror edges are minimized. Do not show unreflected teeth. Having both the direct and mirror image appear in the same photograph is confusing.
 - Use of manual focus is recommended, as auto-focus is unreliable in the oral cavity. In general, for anterior shots, focus on the central and lateral incisors to ensure that the maximum number of teeth are in focus.
 - Avoid shadows. As a general rule, when using a single (not a ring) flash in conjunction with a mouth mirror, keep the flash on the mirror side.
 - Strive for optimum exposure. Keep in mind that mirrors absorb light, and exposures will have to be adjusted accordingly. Light absorption characteristics vary from one mirror to another. Generally, use an aperture compensation of +1 f-stop to help ensure proper illumination of mirror shots.
 - If using a digital camera, check the overall brightness of the image with the histogram function. The peak should appear in the middle of the histogram for extraoral views, and slightly to the right side for intraoral views, consistent with a somewhat brighter image.
 - Unless the clinical condition warrants otherwise, keep tonal values uniform throughout, especially in pre- and postoperative images. If using a digital camera, recalibrate the white balance if the control screen shows inaccurate color shades.
 - Include reference measuring device (as for biopsies).
 - Use clean, neutral backgrounds for tabletop photography (instruments, impressions, materials, and so on).
 - Eliminate poor quality images (over- or underexposed photos, out of focus images, poor orientation, etc.).

- Take full photographic series:
 - X-ray
 - Before procedure
 - During procedure
 - Immediately postoperative
 - Short postoperative time interval (3-14 days)
 - Moderate postoperative time interval (1 month)
 - Longer postoperative time intervals (minimum of 3 and 6 months).

- If appropriate, perform bilateral study (laser vs. conventional).

Intraoral Photography References

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