The Importance of Documentation in Micro Dentistry
Nicholas Gibb discusses the benefits of the dental operating microscope in recording treatment plans.

With the widespread acceptance of the dental operating microscope in endodontics and other dental specialties, the use of routine documentation is now possible and desirable.

**What is Documentation?**

Documentation is the recording of images and data in different formats.

**Why incorporate Documentation?**

This is important for many reasons:

- Accurate recording of patient data, anatomy, conditions and results
- Documentation provides material for analysis, review of cases and resultant improvement of techniques
- Documentation provides images for education and presentation
- Medical/legal requirements
- To provide information for nursing staff and patient education

**Types of Documentation**

Documentation can be provided through the microscope or externally. Without the dental microscope, Intraoral Cameras provide excellent images, as does photography, and now it is possible to have continuous hands-free Intraoral Video documentation via a light mounted Micro Video Camera.

With the Dental Operating Microscope, the choice of documentation types is even wider; multiple types of digital photography, digital SLR photography, video documentation, combined video and digital stills photography and assistant microscopes.

**Which types of combinations to use**

Determine your criteria (patient records, presentations, education, staff participation, referral information, legal).

**How to achieve quality images**

Through the dental microscope, a beamsplitter is required. With Global, different beamsplitter configurations are available depending on imaging required.

A camera mount is required to suit camera of choice (dig-
A camera is required, multiple types, makes and specifications are available with widely varying prices. One should choose a system that meets all criteria, resolution, ease of use features, compatibility and cost. Once chosen Global can provide adapters for most cameras.

What do you want to achieve?
1. Routine continuous video/images for nursing staff and patients: Use a 95/5 beamsplitter, this provides increased camera depth of focus.
   A conventional C-Mount video adapter tube and C-Mount camera will provide the required results.

   Continuous video images enable the dental nurse to participate in and anticipate the patients:- Use a 95/5 beamsplitter, vide adapters for most cameras.
   Once chosen Global can provide adapters that meet all requirements.

2. A binocular assistant scope also enables full participation by the nurse. If this option is chosen a 50/50 beamsplitter should be used.
   A binocular assistant scope with ease, this upgrade facility is important as operators requirements may vary with time. These instant microscope upgrades are an important Global facility not found on all microscopes. Camera specifications are continuously improving hence the need for upgrade compatibility.

   Many operators use the same camera as they are comfortable with unit and results and do not see the need to upgrade. This demonstrates that documentation should follow the operator’s requirements and skills.

   The global perspective on documentation

   Digital Documentation

   SLR X-Mount & Digital X-Mount Adapters

   Automatic Framing – Capture the exact replica of what you see.

   “Framing” is automatic. Images are recorded with virtually no interruption to the treatment.

   Easy Upgrade – Modular design allows for upgrading your camera at little or no cost to change the adapter.

   Efficient Archiving – Entire procedures can be electronically documented; allowing for efficient archiving in patient records.

   No Blurring – The wide optical path of the X-Mount and SLR Mount allows for faster shutter speeds, thus reducing blurring.

   Video Documentation

   Communication/Archive

   – Record the procedure, let the patient watch the procedure, communicate clearly what treatment is needed and why.

   Capture the entire procedure for communicating to colleagues, referring dentists, the patient’s parent, your study club, and insurance companies.

   Educate and persuade your patient

   The greatest benefit: gain patient acceptance of treatment. Those cracks that cannot be seen with the naked eye can easily be seen through the microscope and then shown to the patient via the camera image.

   Superior to Intraoral Cameras – Images are magnified optically, not electronically; making the resolution of the microscope’s video image far superior to traditional Intraoral cameras.

   Also, unlike Intraoral cameras, the microscope/video camera allows you to document the actual procedure.

   More Light – The patented Virtual Beamsplitter provides a clear image from the camera while removing less than five per cent of the light from the user. Other beamsplitters rob the user of 20 per cent or more of the light.

   Greater Depth of Field – The Virtual Beamsplitter also provides incredible depth of field for the video image.

   Flexibility - Camera can be placed on either side of the microscope for user convenience.

   ‘Many operators use the same camera as they are comfortable with unit and results and do not see the need to upgrade. This demonstrates that documentation should follow the operator’s requirements and skills.’

   ‘Framing’ is automatic. Images are recorded with virtually no interruption to the treatment.

   Electronic documentation allows for efficient archiving in patient records.

   The greatest benefit: gain patient acceptance of treatment. Those cracks that cannot be seen with the naked eye can easily be seen through the microscope and then shown to the patient via the camera image.

   Superior to Intraoral Cameras – Images are magnified optically, not electronically; making the resolution of the microscope’s video image far superior to traditional Intraoral cameras.

   Also, unlike Intraoral cameras, the microscope/video camera allows you to document the actual procedure.

   More Light – The patented Virtual Beamsplitter provides a clear image from the camera while removing less than five per cent of the light from the user. Other beamsplitters rob the user of 20 per cent or more of the light.

   Greater Depth of Field – The Virtual Beamsplitter also provides incredible depth of field for the video image.

   Flexibility - Camera can be placed on either side of the microscope for user convenience.

   ‘Many operators use the same camera as they are comfortable with unit and results and do not see the need to upgrade. This demonstrates that documentation should follow the operator’s requirements and skills.’