

■ CompuDent

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Milestone Scientific,
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TDA Recommendation

CompuDent is a highly recommended, computer controlled, local anesthetic delivery system. It received a 94% rating.

Description

CompuDent is an enhanced version of *The Wand*, previously evaluated in THE DENTAL ADVISOR, Vol. 15, No. 10, December 1998. New features include:

- Reduced aspiration time of 5 seconds,
- 2-stage foot control with "cruise" option that allows the operator to maintain the injection without the pressure on the pedal,
- Volume control for audible tones, and
- Audible tones accompanied by voice announcements of anesthetic volume remaining.

CompuDent is designed to deliver local anesthetic at a slow and constant flow rate through an ergonomically designed handpiece called *The Wand*, resulting in an injection experience below the threshold of pain. It can be used to administer local anesthetic in all traditional sites. Innovations in anesthetic delivery include holding *The Wand* handpiece like a pen and rotating it back and forth between the thumb and forefinger during needle insertion in order to vary the direction of the bevel, reducing the possibility of needle deflection caused by tissue resistance. That rotational movement continually changes the bevel position and allows the needle to track straight into the target site. **CompuDent** was evaluated by 5 consultants who used it in over 1100 injections. The speed by which anesthetic is delivered can either be slow (one drop every other second) during needle insertion and penetration for all injections, or fast (about 1.4 cc in 60 seconds) once the final site is reached, such as with an inferior alveolar nerve block. **CompuDent** accommodates all standard local anesthetic cartridges in addition to a variety of needle lengths and gauges. The **CompuDent** system contains a drive unit, foot control, power cord, a technique/operation video, manual, and chairside quick-start cards.

Suggested Retail Cost: \$1,395.00

Equipment Features

The majority of consultants appreciated the advances **CompuDent** had to offer in local anesthetic administration. They reported that the patients' comfort level was superior

to that of traditional syringes. It reduced their anxiety and also resulted in decreased stress for the operator. The design and weight of the handpiece afford a more comfortable and accurate mode of anesthetic delivery, which produces quicker and more profound anesthesia. Palatal injections especially were found to be more comfortable to the patient than with traditional syringes. The auditory tones are a great help in providing a quick way of knowing how much anesthetic solution is being delivered. Some consultants were concerned that it was difficult to visualize how much solution was being extruded from the anesthetic cartridge while at the same time, keeping an eye on the patient. Some consultants felt that the unit was too bulky. A few others mentioned that there was a fairly long learning curve to properly control the rate of anesthetic delivery with the foot pedal. The overwhelming majority of consultants found **CompuDent** to be better than the system they were currently using and would purchase it for their practices. All consultants indicated they would recommend it.

Clinical Tips

- ▶ Slowly bend the plastic handpiece or snap off excess length to facilitate easier control of the needle when injecting into tight areas.
- ▶ Do not place **CompuDent** within 30 cm of other electrical devices, such as electro-surg units, as they may cause interference.
- ▶ Note that 0.225 cc of anesthetic is expelled during the start-up cycle, and that 0.12 cc remains in the tubing after the cartridge is emptied; therefore, out of a 1.8-ml cartridge, the injection volume is about 1.4 ml.

Consultants' Comments

- ▶ "More comfortable for patients with a faster onset of anesthesia compared to traditional methods."
- ▶ "Anesthetic carpules are easy to change."
- ▶ "I wish it were more compact."
- ▶ "Make the cruise and regular speed of delivery easier to control with the foot pedal."
- ▶ "Be patient with the time it takes to deliver anesthetic."

*Note: Milestone Scientific has recently introduced **CompuMed**, which is being used in medical applications.*