

Chapter 11

DECIDE YOUR PARAMETERS OF DENTAL SERVICES

Extractions

Most third-world countries have so many people with painfully, abscessed teeth that we extract teeth all day long, each day. This is the simplest way to set up a dental clinic with the least amount of equipment. The relief of pain and the elimination of the infected teeth is the fastest service we can give to the many hurting people. We can move rapidly along the line from one patient to the next "military style" to relieve the suffering of many. But there have been numerous trips that we never saw the end of the lines.

Sterilization is of utmost importance when dealing with blood and actively abscessed teeth. The patients we are treating could have tuberculosis, or any number of other diseases in addition to what we are treating. A portable autoclave is ideal for the quick turn around of sterile instruments for reuse. Our supplies and instruments are very basic for delivery of this kind of service in a remote setting or in a hospital. Pain medicine, anesthetic, needles, antibiotics, gloves, masks and 2 x 2's are our most needed supplies. If helpers are available it is good to give oral hygiene instruction and toothbrushes, too.

Scaling and Cleanings

The decision to scale and clean teeth along with extractions takes much more time. Not nearly as many people can be seen by the dentist. Sometimes the patient has never seen a dentist and has calculus buildup, which looks like one tooth from ear to ear. Hours can be spent cleaning up one person by hand scaling compared to seeing several extraction patients. The decision to clean teeth will help periodontal problems, but may dilute your efforts to see many more people hurting with painful abscesses.

Additional instruments will be needed for scaling and cleaning procedures supplemental to the basic surgical setup. If you intend to polish after scaling, a dental handpiece will be needed with prophylaxis paste and rubber cups. Evaluation and education of patients about their oral hygiene and periodontal condition would naturally be necessary. Many of these individuals are simply unable to receive regular dental care or afford dental products. Baking soda and salt can be used ($\frac{1}{2}$ and $\frac{1}{2}$) in countries where toothpaste is not available.

Restorative

Bringing portable equipment to set up a dental clinic requires a lot of preplanning. Adequate equipment is a major factor in delivering full service dentistry to a group of people either on a short trip or long stay. You need a

comfortable building to work in with electricity, water, and sanitation. Also, there must be a way to lock the building at night to prevent theft of equipment or supplies.

Provided you have an adequate location to practice restorative dentistry, then you must have equipment, instruments, and restorative material. Much more time will be spent on each patient compared to simple extractions and cleaning. You will see patients with so much decay that you could spend most of the day on their specific restorative needs. When we are set up to do portable restorative work and have lines of people waiting for service, time is our biggest consideration. We divide our equipment and supplies into areas of services. Extractions are done in one area, cleanings in another, and restorative in yet another where there are more power cord outlets for small equipment.

When lines are long, we will limit each restorative patient to two fillings of their choice, so that we can see more people and do the worst teeth for each person. Rather than work on a select few patients, and do everything for them, we try to do a little for everybody. Even at that, we usually have people the last day that we are not able to treat because the lines get longer each day and we are not physically able to see everybody.

Crowd control becomes more complex with larger teams and larger numbers of people waiting for treatment. We normally have numbered registration cards with the patient's name, age, chief complaint and brief medical information. We can tell by card number who is next in line and move extractions through more quickly. This keeps order in the ranks rather than creating a wild crowd trying to push through the doors. We have had armed police assist us many times at the front door to maintain order and fairness, when there are hundreds of people waiting in line.

Restorative services will depend upon the individual dentist and his decisions about how to utilize his time. Each practitioner will have his own preferences to equipment, techniques and supplies. It is best to let each operator set their own pace and work in their own style. Restorative work requires more supplies and equipment, so it also requires more people to assist. The best work situation is in a clinic already established. This would allow you to just bring the supplies and instruments, which you enjoy working with in your suitcase. Packing a whole dental office to a work location is difficult. But it can be done to a reasonable degree with lots of preplanning and packing. However, it may not be worth the effort for short-term trips of only a few days. Keep it simple and pack light.

Endodontics

The concerns about expanding the portable dental set up to include endodontics, would be the availability of an x-ray unit and follow-up. There are several portable x-rays that work very well. This is one piece of equipment, which must be packed extremely well to prevent the cathode ray tube from being broken. We do not normally take an x-ray unit with us, because it is such an expensive piece of equipment and easily broken. Also, it requires a stable electric current to work efficiently. I know of a few dentists who take an apex locator with them to do endo without the aid of x-ray equipment. Antibiotics following one sitting endo procedures on the field and some type of follow up are absolutely necessary.

Patient follow-up in remote areas after endodontics is a real problem because many short term teams are only on location one or two weeks. The question is always asked, "Would it be best to extract the tooth to eliminate the infection, rather than do a root canal?" Also, can the tooth be adequately restored later after endo?

Performing endodontics without adequate equipment must be carefully weighed in the mind of the operator. Some very experienced operators may feel comfortable while others may not. Normally, the best treatment on the field without a means of follow up would be to extract the abscessed tooth.

Prosthetics

Portable dental equipment for prosthetic dentistry becomes much more complex because of the much larger scope of equipment and supplies needed. The most practical form of prosthodontics would be cold cure (salt & pepper) temporary partials with wrought wire or preformed clasps. Some of the new light cure plastics lend themselves well for portable dentistry. In fact, I have a good friend who put his partial denture case on a rock in the bright sunlight to cure the light cured (Triad) prosthetic materials. This is an example of how resourceful some fellows get.

I would not advise the inexperienced clinician to attempt this phase of dentistry with portable equipment. Several times I have packed prosthetic supplies in an extra trunk and tried to help individuals on a specific trip. But prosthetics is best performed with adequate equipment in a long-term stationary clinic with lab facilities. And preferably with a laboratory technician to do the fabricating! Normally, the doctor must prioritize his time to alleviate pain and suffering for the patients who come for help.

The techniques and equipment necessary for laboratory procedures on the field are normally out of the scope of "portable dentistry." Nursing homes, hospitals and institutions would be more ideal for portable dental care with a laboratory and technician handy.

Chapter 18 will give you some ideas of how to set up a fixed dental clinic and laboratory with basic equipment, which would be necessary overseas.

Simple set of Surgical Instruments

- 8 Mirrors with metal handles
- 8 Explorers
- 5 Aspirating syringes
- 1 Upper bayonet forcep #65
- 2 150 upper incisal forcep
- 2 151 lower incisal forcep
- 2 23 Cowhorn lower molar forcep
- 1 53L upper molar forcep
- 1 53R upper molar forcep
- 1 88L upper molar forcep
- 1 88R upper molar forcep
- 1 151S pedo lower forcep
- 1 150S pedo upper forcep
- 1 6 Tooth splitter forcep
- * 222 third molar forcep *optional
- 1 Howard bone file #12
- 2 West periosteal elevator #2
- 1 Root tip pick DEL 1 straight
- 1 Root tip pick DEL 2 left
- 1 Root tip pick DEL 3 right
- 4 Straight elevators
- 1 Universal #50 East elevator
- 1 Universal #51 West elevator
- 2 Straight hemostats
- 1 Suture hemostat
- 1 Suture scissors
- 1 Bone Rongeur
- 1 Surgical handle
- 1 Curved hemostat
- 1 Lock-type tweezer
- 1 Tissue tweezer
- 1 Tissue scissors
- 1 Short-curved hemostats
- 2 Lucas surgical curettes #85
- 2 Bib chains
- Set of endo files for root tips
