

coordination of breathing and aerosol delivery. It also allows the aerosolized particles to remain in suspension longer. Handheld nebulizers discharge a medicated mist into a small plastic mask, which the child holds over the nose and mouth. To avoid particle deposition in the nose and pharynx, the child is instructed to take slow, deep breaths through an open mouth during the treatment. For home use, an air compressor is necessary to force air through the liquid medication to form the aerosol. Compact, portable units can be obtained from health equipment companies.

Assessment of breath sounds and work of breathing should be done before and after treatments. Young children who become upset by having a mask held close to the face may become fatigued with fighting the procedure and may actually appear worse during and immediately after the therapy. It may be necessary to spend a few minutes calming the child after the procedure and allowing the vital signs to return to baseline to accurately assess changes in breath sounds and work of breathing.

Family Teaching and Home Care

The nurse usually assumes responsibility for preparing families to administer medications at home. The family should understand why the child is receiving the medication and the effects that might be expected, as well as the amount, frequency, and length of time the drug is to be administered. Instruction should be carried out in an unhurried, relaxed manner, preferably in an area away from a busy ward or office.

Instruct the caregiver carefully regarding the correct dosage. Some persons have difficulty understanding medical terminology, and just because they nod or otherwise indicate they understand, the nurse should not assume that the message is clear. It is important to ascertain their interpretation of a teaspoon, for example, and to be certain they have acceptable devices for measuring the drug. If the drug is packaged with a dropper, syringe, or plastic cup, the nurse should show or mark the point on the device that indicates the prescribed dose and demonstrate how the dose is drawn up into a dropper or syringe, measured, and the bubbles eliminated. If the nurse has any doubts about the parent's