

ANAESTHETIC NOTES FOR NURSES

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IN regard to the giving of anæsthetics the duties of a nurse, in this country at least, are concerned almost entirely with the pre and post-anæsthetic stages. During the actual administration, the nurse's work consists in helping the surgeon and the theatre sister, while the anæsthetist usually looks after himself.

PRE-ANÆSTHETIC DUTIES

These may be divided into two groups, depending upon whether the nurse is working in a ward or in the operating theatre.

In the first instance her duties are centred entirely round the patient. She must remember that although operations, trivial or otherwise, are an everyday occurrence in the hospital or nursing home, they represent a serious event in the life of the patient. It is therefore her duty to give what reassurance she can to the patient, and in this connection she should carefully avoid any discussion of the relative merits of the surgeons and anæsthetists. It is cold comfort for a nervous patient to be told that Dr. X, who will give the anæsthetic, is a very capable man, but that Dr. Y, who comes on another day, is better. With nervous patients the subject of anæsthetic and operation should be mentioned as little as possible, and with children it is best to avoid it altogether. Children must never be deceived as to the nature of the proceedings, and in this respect the parents are usually the worst offenders. A child who has once been deceived will always be suspicious on future occasions. It is the anæsthetist's work to send it to sleep and it is much better to let him tell it gently the truth and what is required of it.

It is customary to give most patients an injection of atropine, with or without morphine, prior to the administration of a general anæsthetic. This is usually left to the nurse as part of her duties in the preparation of the patient. It is essential that the injection should be given sufficiently long beforehand to allow the atropine to exert its full effect of drying up the mouth and air passages. Many nurses do not grasp this fact, and consider that any time during the half-hour before operation will do. This often means that the patient receives the injection just before leaving the ward, with the result that the anæsthetist has to contend with a "bubbly" patient during the operation, and there is the added risk of bronchitis during the convalescence. A full half-hour at least must be allowed to elapse between the time when the injection was given and the time for the anæsthetic. If the injection is made up from a solid tablet

of the drug, it should be dissolved in at least 15 minims of water. Nurses sometimes have the habit of dissolving the tablet in five minims of water, so that if two drops are lost in the process of injection (a not uncommon occurrence) the patient receives rather more than half the dose prescribed. I once asked a nurse why she did not dissolve the tablet in 15 minims instead of the usual five, and was informed that the patient would thereby be getting three times the dose ordered!

ENEMAS AND APERIENTS BEFORE OPERATION

These are usually ordered by the surgeon. Unless there is to be an operation on the alimentary canal, it is not necessary to evacuate the intestines completely. It is bad for a patient to be in a state of complete starvation before a major operation. A light meal should be allowed about two hours before the administration of gas, and four or five hours before operations under ether or chloroform.

When the time comes for the journey to the theatre, the nurse must see that the patient is made comfortable on the trolley. There is no need for the pillow to be placed under the patient's shoulders so that the head hangs down. If the anaesthetist wishes it so for purposes of induction, he can arrange it when he is ready. There should be an adequate degree of warmth for the patient, and in cold weather especially he should not be sent down to the theatre without bad-socks. Before leaving the ward the nurse must remove any sets of artificial teeth which the patient may possess.

During the induction of anaesthesia the nurse must remain at the side of the patient. She should be seen and not heard. If the anaesthetist wishes to talk to the patient during the early stages of the induction, a thing which is often necessary in the case of children, he is quite capable of doing it himself without any assistance from the nurse.

The duties of the theatre nurse toward the anaesthetist are for the most part concerned with the preparation of the apparatus. The gags and airways must be inspected to see that they are clean. This may sound superfluous advice, but anaesthetists sometimes place a gag back on the anaesthetic waggon after use, where it remains for the next patient. There should be an ample supply of ether and chloroform at hand, and new bottles should have their stoppers loosened ready for use. A tight stopper can be loosened easily by twisting it between the handles of a Mason's gag held firmly in the hand. The oxygen cylinder must be kept ready for use, with a plentiful supply of oxygen in it. Hypodermic injections and syringes should be placed on the anaesthetic waggon where they are easily accessible. For emergency operations on cases of acute intestinal obstruction, a stomach tube should be made ready, with a small porringer containing glycerine. For operations on the head, such as dental

extractions or tonsillectomy, it is wise to have a tracheotomy set ready in case of emergency. Where a spinal anæsthetic is to be given, the needles and syringe must be sterilised in spirit. A bowl of sterile water must also be provided in which the syringe and needles can be rinsed, as spirit destroys the action of stovaine and novocaine. If there is a portable electric fire in the theatre, it must be kept well out of the way of the anæsthetist. This, too, applies to cauteries, and it should be mentioned also that ether is not the only inflammable anæsthetic in use. The two gases, ethylene and acetylene, which are sometimes employed as anæsthetics, are both capable of exploding when mixed with air, if in the presence of a naked flame.

POST-ANÆSTHETIC DUTIES

These also fall naturally into two groups, the ward nurse dealing with the patient, and the theatre nurse dealing with the anæsthetic apparatus.

The ward nurse should be in constant attendance on the patient during the time immediately following the operation. She is responsible for seeing that free respiration is maintained, and must hold up the chin if necessary. If an airway has been used, it should be left in position until the patient coughs it out, unless removed by the anæsthetist before the patient returns to the ward. If the patient starts to vomit, the pillow should be taken away and the head turned to one side. The patient must be kept warm in bed, but on no account should hot-water bottles be put in the bed until the patient is conscious. A hot bottle which would not harm a conscious person may produce a severe burn on one who is still anæsthetised. Care must be taken to prevent the bed-clothes from rubbing on the patient's eyes while he is being put back to bed. A sore eye may be produced in this way, and the blame placed on the anæsthetist.

Cases which are badly shocked, or which have a low blood-pressure following spinal anæsthesia, should have the foot of the bed raised four or five inches from the floor. For operations on the respiratory passages, such as tonsillectomy or the straightening of a deviated septum, it is often an advantage to let the patient recover consciousness in a prone or semi-prone position. The possibility of blood being inspired into the trachea is thus avoided. The nurse must keep a careful watch for any sudden changes in the patient's condition, especially with regard to pulse, respiration and colour. On regaining consciousness the patient should be encouraged to drink plenty of fluid, except in those special cases (*e.g.*, gastric operations) where this is contra-indicated. Even if vomiting occurs afterwards, it does at least wash out the stomach and help to relieve post-anæsthetic nausea.

The duties of the theatre nurse consist in clearing up the anæsthetic waggon and accessories. The apparatus should be carefully inspected for traces of blood. It often happens that during the course of an operation an artery spurts over the waggon and soils the gags and airways. It is

most annoying for an anaesthetist to pick up an airway for use and find traces of the last patient's blood upon it. Both gags and airways should be scrubbed as well as boiled after use. The inside of an airway can be cleaned quite easily by means of an ordinary bottle-brush kept in soap. Any anaesthetic left in the drop bottles must be thrown away. It has happened occasionally that a keen nurse has poured ether back into a chloroform bottle and that the anaesthetic was subsequently used in the presence of a lighted cautery, with disastrous results. Any chloroform, or mixture of chloroform and ether, left in the bottles must be thrown away. Ether left over may be used for cleaning purposes, or for making ether soap.

In institutions where large quantities of gauze and lint are used each week for anaesthetic masks, the material, if not soiled with blood or saliva, may be washed and sterilised for use as dressings. Rubber face-pieces should be washed after every case, and bags used on closed inhalers should be washed out with water and hung up to dry. If rubber tubing attached to such pieces of apparatus as the Shipway or Junker's inhaler has been detached, the nurse must leave it to be readjusted by the anaesthetist when required for use again. Faulty connecting of the tubes on a Shipway's apparatus has been responsible for more than one fatality. Cylinders of oxygen and nitrous oxide must be turned off fully. It is not unusual for an oxygen cylinder to be left leaking during the night, and to be found empty when required for use on the following morning.

While the foregoing remarks are applicable more especially to nurses working in hospitals and training schools, it is to be hoped that they may be of value also to those working in nursing homes or engaged in private nursing.

In conclusion, the nurse should remember that she is liable to be the patient at any time, and must always leave the anaesthetic apparatus in the same state that she would wish to find it if she herself were being taken to the theatre for operation.

Crumbs in the throat—The unpleasant choking sensation caused by a crumb "going down the wrong way" may be instantly relieved by taking half teaspoonful of glycerine. This causes the crumbs to float up. It is never known to fail.

People would find less difficulty with ready made shoes if they would stand up instead of sitting down to fit them on, as the feet are much smaller when sitting than when walking about.

Childhood often holds a truth with its feeble fingers, which the grasp of manhood cannot retain—which it is the pride of utmost age to recover.

When men are rightly occupied, their amusement grows out of their work, as the colour petals out of a fruitful flower.