

The Obstetrical Unit

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THE Obstetrical Unit of the Dalhousie Public Health Clinic was instituted when the clinic was opened in 1925. It serves a two-fold purpose:

(1) In conjunction with antenatal and postnatal clinics it provides free or at a nominal sum a complete obstetrical service for people who cannot afford to pay the usual fee asked by a practising physician.

(2) It provides for the student practice in home obstetrics under the supervision of medical teachers.

Since 1925 nearly eight hundred deliveries have been done in the district with but one maternal death and that due to pulmonary embolism. Many factors have contributed to this excellent record. In the first place only women who attended the Prenatal Clinic were cared for. Furthermore, these deliveries represent selected cases, inasmuch as only women who were expected to deliver in a normal way were permitted to go into labour in the home. If, for example, a breech presentation had been diagnosed, if any disproportion were evident or any condition indicated a possibly difficult labour or the need of special equipment, the case was sent to the hospital.

It is not the purpose of this article to present a record of accomplishment but rather to indicate to students, (1) just what information is available to the would-be obstetrician as he sets out on his first case; (2) some of the details of the operation of the unit; (3) the regulations governing the interne; (4) the contents of the ideal obstetrical bag; (5) the conduct of an actual delivery in one of the poorer homes.

It has recently been decided by the faculty that each student who graduates from Dalhousie Medical School shall have seen at least twenty deliveries in hospital and shall have done at least eight deliveries in hospital and two in the home. It is recommended also that each fourth year student shall see one delivery in the home in addition to those he sees in the hospital. The Obstetrical Unit is concerned with the last two requirements concerning deliveries in the home.

An effort is made to impress upon the patients the importance of their early and faithful attendance at the prenatal clinic and they are given specific instructions as to when they should call the doctor. They are told to wait until the pains are coming at five to eight minute intervals. When calls come in without this specific information the person making the call is told to go and "time the pains". This saves much loss of time, as patients are prone to seek attention early in what is sometimes a long labour. There are of course exceptions to this rule. Sometimes calls are made by young, irresponsible persons. Some come, having been relayed, from the Police Station. Others are made by people who are either not

aware of the duration or spacing of pains, or who, if they are, do not seem capable of giving a satisfactory answer. In all doubtful cases the interne must answer the call in order to be sure of the true state of the patient.

Only cases which have attended the prenatal clinic will be seen and delivered by clinic doctors. Under no circumstances will calls from people outside this group be answered, except with the permission of the senior clinician in charge of the unit. If the patient who is calling has a prenatal record for this pregnancy, and if the interne decides that the case is in need of immediate attention, he calls a member of the final year to accompany him, and at the same time he calls a taxi. The interne then goes to the record room where upwards of twenty-four thousand records are filed and finds the one which contains all the information accumulated during the patient's attendance at the prenatal clinic. This information consists of a complete history and physical examination both general and obstetrical, and a recording of the blood pressure and urine analysis which have been done on each visit. With the above information, the salient features of which can be assessed at a glance, the student has a composite, complete and accurate picture of his patient, although he himself may never have examined or perhaps never seen her.

The last duty before leaving is to get the obstetrical bag from the surgery where two are always kept in readiness fully equipped, while materials to equip several others are always available. In the meantime the final year student has either arrived at the clinic or is to be picked up enroute.

The contents of the obstetrical bag are as listed:

INSTRUMENTS

- 1 scale.
- 1 needle holder.
- 1 pair scissors.
- 1 pair dressing forceps.
- 1 Allis forceps.
- 2 pairs of haemostats (curved).
- 1 curved needle (round).
- 2 curved needles (cutting).
- 1 anaesthetic mask.
- 1 rubber catheter.
- 2 tubes catgut.
- 1 hypodermic set (in case).

DRUGS

- 1 vial heroin.
- 1 bottle alcohol.
- 1 bottle chloroform.
- 1 bottle iodine.
- 1 bottle lysol.
- 1 can ether.
- 2 bottles green soap.
- 2 ampoules aseptic ergot.
- 2 ampoules pituitrin.
- 1 box of tubes of silver nitrate 1% for eyes.

- 1 instrument case.
- 1 flashlight.
- 1 enema tube and funnel.
- Vaseline for enema tube.
- 1 can powder.

DRESSINGS (Sterile)

- 1 pkg. absorbent cotton.
- 1 container absorbent sponges.
- 1 container gauze sponges.
- 1 pkg. obstetrical pads (4).
- 1 pkg. cord dressings.
- 1 tube cord ties.
- 2 pairs rubber gloves:
 - 1 pair size 8.
 - 1 pair size 7½.
- 1 delivery pad.

LINENS

- 1 cap.
- 1 mask.
- 1 gown (sterile).
- 1 rubber laundry bag.
- 6 towels (sterile).
- 2 aprons.
- 1 pair obstetrical stockings.

MISCELLANEOUS

- Printed instructions for student.
- Registration cards.
- Head stethoscope.
- 1 nail brush.

On arriving at the home the first task is to determine the state of the patient and the position and presentation of the foetus. These have already been recorded on the chart as they were at the time of the mother's last visit to the clinic, but they may have changed. At the same time the foetal heart is auscultated. Having satisfied oneself as to the position and presentation and that the baby is alive, a rectal examination is in order. Examining gloves are provided and green soap is used for lubrication. By means of the rectal examination one may ascertain the degree of dilatation of the cervix, and the position to which the foetus has descended in the pelvis. One may check to a certain extent the abdominal examination by determining, if possible, whether it is an anterior or a posterior position. With some experience, an approximate idea of the time necessary to complete the second stage of labour may be gained from the rectal examination plus the timing of the pains. Other factors such as the duration and type of pain are additional criteria. The clinician whose turn it is to attend the delivery is notified of the state of affairs, and, if the delivery seems likely to be completed in an hour, the Victorian Order is called and the nurse comes to "prep" the patient. This prep includes shaving the vulva, washing with soap and water and also the giving of an enema, if time permits.

The instruments are then put on to boil. These include the two curved clamps, one dressing forcep, one Allis forcep, one pair scissors, the needle driver and suture needles, the hypodermic syringe and needles. A cake pan is as good as anything in which to boil instruments. It is usually long enough and being low and flat, very little water will cover the instruments and will boil quickly. They are boiled for twenty minutes. The chloroform may now be poured into a dropper bottle provided for it and the mask made ready. When it is felt that the baby will be born in about a half hour, the clinician is called so that he may be present at the delivery.

While it is a fairly good rule to wait until the membranes rupture, before scrubbing, sometimes deliveries are precipitate and the interne should be guarded by general signs rather than any one. The patient's word with regard to ruptured or non-ruptured membranes is not always reliable. In one instance with no history of the membranes having ruptured the head presented without membranes after a relatively long second stage, probably slower because of the somewhat dry labour. The membranes, in this case, had ruptured at least three hours previously, as the patient had been under close observation during that time. The passage of a large amount of urine from a distended bladder may mask or be mistaken for liquor amnii by the patient. Then too, the membranes may rupture during the expulsion of the enema and pass un-noticed. Frequent rectal examinations are made to determine progress and frequent auscultation of the foetal heart carried out. Vaginal examination is done only when ordered by the attending obstetrician. While it is recommended to have the patient up walking around until the first stage is completed, this is not always wise as the second stage may be very rapid, too rapid to be

properly conducted. Here again the interne should be guided by general signs rather than any one. A rapidly descending head is a fairly good indication that it is time to scrub. From a student's point of view it is well to err on the side of safety and be prepared.

Before scrubbing one makes sure that all pre-scrub duties have been performed, instruments boiled and ready, chloroform and mask prepared, catgut available in the event of a tear, and plenty of hot water and basins ready for the nurse, if she has not already arrived. The rubber bag provided is tied on the foot of the bed. This is to receive any soiled linen and thus prevent contamination of clean supplies in the bag.

If the bed be low and sagging, it is very difficult to get control of the head. A board on the spring will help to keep it stiff. Or the patient may be placed in the Sims position or crosswise in the bed with her hips on the edge.

The apron is then put on and the scrub begun, always with running water where possible. If not, a large basin will suffice. One should scrub for *at least five minutes*, ten if possible. A sterile brush is provided. If soap is available in the home it may be used. Otherwise the green soap in the kit is used. The scrub completed, one is careful not to turn off a tap or close or open a door with the hands. The nurse will then assist with alcohol and a sterile towel to wipe the hands. The sterile gown, gloves and cap and mask are then put on. Until this time the patient may have been up around the room. Many patients are more comfortable this way and if progress is slow it will be of some help.

When the membranes rupture or the delivery seems imminent, the patient is put to bed on her back with knees drawn up and widely separated. The sterile pad is slid under her with the assistance of the nurse who lifts the buttocks. The patient is then draped with three of the sterile towels, one across the abdomen and one over the medial side of each thigh and knee. One towel having been used to dry the hands, there remain for the delivery only two of the six provided. The left hand is placed on the head when it presents to prevent its too rapid advance. The anaesthetic is given by the nurse only after the caput is presenting and then only at the time of the uterine contraction, but full anaesthesia is administered during the actual delivery. Control is gained by hooking the fingers, covered by a sterile towel, behind the rectum in such a way as to have the tips of the fingers under the supra-orbital ridges. When the head is delivered a search is made to see if the cord is around the neck. If it is, an attempt is made to pull a loop of it down and slip it over the baby's head. Failing this, it is clamped in two places and cut between. Pressure is made downwards on the head until the anterior shoulder is delivered under the symphysis, then upward to sweep the posterior shoulder over the perinaeum. The baby is then grasped by the feet, held head downwards and any mucus is removed from its mouth and throat; the soles of the feet are flicked until a brisk cry is obtained. When the cord has stopped pulsating it is clamped, tied and cut. The clamp is placed about one and one half inches from the baby's abdomen and the tie

about one inch. Having cut the cord, the interne swabs the tied end with a sterile piece of absorbent to be sure that there is no bleeding, and applies a cord dressing. The baby is passed to the nurse who wraps it in a blanket and places it where it will be sure to be warm. The head is always placed on a lower level than the feet.

In some instances the placenta is delivered almost with the baby. By abdominal palpation the progress of separation can usually be followed. The uterus at first will be low and broad and will then gradually assume a high globular shape with its upper pole above and usually to the right of the umbilicus. Separation may take place on one side of the uterus first. In this case one side will be high, globular and hard while the other side will be low. It may be that immediately following the delivery the uterus will be felt hard, high and to the right of the umbilicus thus indicating separation. When this has taken place the placenta is expressed by pressure on the fundus. It should always be remembered that hasty expulsion of a partially separated placenta predisposes to post partum haemorrhage. If there has been any laceration it is repaired before the completion of the third stage. The interne need not be alarmed by the violent attack of shivering which almost invariably follows the delivery. It is the usual reaction. As soon as the placenta has been delivered, $\frac{1}{2}$ c.c. of pituitrin and 1 c.c. of ergot are given intramuscularly preferably into the buttock.

Instruments are carefully cleaned, and all soiled linen and gloves put in the rubber bag. The baby is carefully examined to make sure that no anomalies are present such as imperforate anus or oesophagus or cleft palate. Silver nitrate 1% is put in the eyes, two drops in each as prophylaxis against Ophthalmia Neonatorum. The baby is given to the nurse to bathe and dress. Aspirin and Codeine tablets are left for "after pains". The birth notification card is filled in and signed by the attending clinician. Before leaving, the interne makes sure that there is no post partum haemorrhage and that the fundus is firm. Any retained clots are expressed manually from the uterus. This will aid in diminishing after pains. The patient is instructed to put the baby to breast as soon as she feels rested and to nurse it every four hours until the breasts fill on the third day. After which it is nursed every three hours during the day and every four at night.

Of equal importance with the delivery is the after care. The interne must see his patient on the 1st, 2nd, 4th, 6th, and 10th days following the confinement. Patients are kept in bed ten days and are then discharged. A record of the patient's condition is kept by the V.O.N. nurse who leaves a chart for the doctor. At each visit the fundus is palpated and involution followed day by day. On the fourth day the clinician who was present at the delivery visits the patient with the interne. Any abnormalities which may arise during the puerperium are reported to him. On discharging the patient on the 10th day, the interne gives her a slip of paper with the following instructions:

"On the fourth week bring baby to Well Baby Clinic, Thursday, 2 p.m.; sixth week come for your post natal examination and bring the baby with you. This attention is very important for both you and your baby. For you, in order to make sure you are in good physical condition following your confinement; for your baby, in order that he or she may get a good start in life and keep well."

In conclusion, it may be stated that no attempt has been made to add anything to knowledge of the practice of obstetrics but to try to present the details of the working of the obstetrical unit and the conduct of a case in the home.

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Before publication, this paper was read by a medical graduate who now teaches one of the so-called "academic" subjects. He made the following comments: "A teacher of any medical subject who remembers that most of his students are going to be practitioners must constantly recall to his mind details of clinical procedure, and I have repeatedly regretted my limited opportunities, when a student, of conducting obstetrical cases. Some opportunities, indeed, were neglected because book-study was much more profitable in examinations than it is now at Dalhousie. Pregnant women, unfortunately, still arrange their time of delivery at as awkward hours as when I had to set out into the slums at two or three in the morning, on foot, but fortunately carrying a bag that would not hold a fifth of the items in Mr. Coady's list. If, however, an "academic" teacher is impressed with the value of obstetrical practice, surely a future practitioner can sacrifice sleep to acquire it under the guidance of experienced clinicians. The minimum required number of cases is not enough to make the technique automatic under all kinds of trying circumstances—a difficult labour in a poverty-stricken home with an inexperienced nurse or none at all".

I expect that woman will be the last thing civilized by man.—*George Meredith.*

The way to gain a good reputation is endeavour to be what you desire to appear.—*Socrates.*

The learning and knowledge that we have is at the most but little compared that of which we are ignorant.—*Plato.*

A wise physician, skilled our wounds to heal
Is more than armies to the public weal.—*Pope.*