

smaller than the gauze dressings, and lastly the eighth layer of gauze. Professor Lister's reasons for using the eight layers of dressing are these: The discharge would have to pass through the dressings, and then the seven layers of gauze before it came in contact with the macintosh, which directs the discharge towards the edge of the dressings. If the discharge should get outside the dressings bacteriæ would float up, and set up trouble. The eighth layer is used so that the safety pins can be held by it. Over all these dressings bandages of gauze are carefully applied.

The following solutions are used:—

I. Carbolic acid lotion, 1 to 20, used to cleanse the parts around the seat of the wound, so that no bacteriæ will remain near it.

II. To soak the instruments to be used during the operation.

III. To cleanse all sponges before the operation.

IV. To soak the drainage tube in.

Carbolic acid lotion, 1 to 40, is used to

I. To wash the surgeon's hands, as well as those of assistants.

II. To soak the deep dressings in.

III. To wash the sponges in during the operation.

IV. To inject wounds with.

Next chloride of zinc lotions, grains ten to one ounce of water, and grains forty to one ounce of water, used for washing out cavities when they have become septic. These solutions destroy the putrefactive elements.

The salicylic cream is used to put on the protective when the wound is irritated by the carbolic acid.

Boracic lint is prepared by soaking common lint in a boiling solution of boracic acid. It is used on the wound when the dressings have been removed for good. Professor Lister's experience leads him to believe that if, when the dressings are removed, a single drop of serum were to be pressed out by the movements of a limb, say after operation, and then regurgitate into the interior, after being exposed, even for a second, to the influence of septic air, putrefaction would be pretty certain to occur. A case occurred last summer in Dr. Roddick's wards which will, I think, coincide with the views laid down by Professor Lister. A patient whom I dressed daily for an iliac abscess was

doing nicely, the wound being healthy and sweet. He had had no motion for four days, and was ordered to take Pil. Cath. Co. ij. During the night he had six or seven motions. Owing to his straining at stool some of the discharge found its way from beneath the dressings. In the morning, on removing the dressings, the wound was found discharging fetid pus, streaked with blood. His temperature went up 3° , to 102° ; in three days the wound was sweet and healthy again after free use of a solution of chloride of zinc, forty grains to the ounce.

The following summary of the antiseptic treatment will show why it is so much more successful than the ordinary treatment of wounds:—

I. "The changing of the dressings is regulated by certain conditions: temperature, pain and discharge, the existence of any of these calling for a change.

II. "The antiseptic treatment is serviceable, and will repay its use in cases which from their very nature must suppurate. By it the amount of suppuration seems to be reduced to a minimum.

III. "Great care must be taken to stop all hæmorrhage before closing the wound, and in every wound of any magnitude one or more drainage tubes should be inserted, not covered by the protective but by the wet deep dressings.

IV. "Only carbolized catgut sutures and ligatures are to be used. The ligatures are to be cut off short.

V. "Whatever atomizer is used in an operation of any length, it is well to have several pieces of gauze, soaked in a solution of 1 to 40, ready, in case the atomizer should fail. "If the spray should fail and the wound was exposed to the influences of organic germs, it does not follow that the case is hopelessly lost, as the spray can again be turned on it with good hopes of success.

VI. "All the instruments used in the operation should be soaked in 1 to 20. The operator and his assistants' hands should be cleansed in 1 to 40, and nothing should be brought in actual contact with the wound until it is cleansed in carbolic lotion.

VII. "With regard to the things required, and the time used in antiseptic dressing. The