understood thing that no member of the honorary staff accept contract work, such as club and Poor Law, but in return for his experience and advertisement—a perfectly legitimate one—he should, if in general practice, demand a rather higher fee than those without such an appointment; in fact, should be more or less a local consultant whom we could call in, in perfect confidence that he is not competing with us on the same basis of fees as our own. Having more time for hospital work, he would be able to increase greatly his powers as a diagnostician. It is in that capacity we chiefly want him to give us a helping hand; for experience is sometimes fallacious and judgement difficult, and we want a surgeon who does not always require to look inside before he can tell us whether it is a case for operation or not. Many a man becomes a good operator with practice, but the art of diagnosis is a much more difficult one to attain, unless one has the advantages of a hospital appointment and plenty of time to devote to it. My second remark is respecting the out-patient department—the ordinary medical and surgical part of it. For many years there has been great dissatisfaction about it, partly because it is overcrowded and sufficient time cannot be devoted to the individual cases, and partly to the abuse of it by people who could well afford the small fee of their own medical attendant. In these enlightened days, when drugging is considered in many cases to be quite a subsidiary part of the treatment and more importance is attached to the prescribing of a proper dietary, to the methods of living generally, and to the housing and sanitary surroundings of the patient, does it not seem evident that this treatment would be much better carried out by their own medical attendant, by whom all these details could be investigated, and whose personal supervision would ensure all orders being more thoroughly carried out? Looked at from this point of view, I think the out-patient department ought to be shut down, and, using Sampson Gamgee's phrase, "turned into the poor man's consulting-room."

There are other points which one could have touched upon concerning our outlook for the future, but I am afraid I must have already wearied you. Let me conclude with a paraphrase of the words of Sir Thomas Browne:

If a man does not sell his soul, if he does not part with his birth-right of independence for a mess of pottage to the Ishmaelites, who harass our borders with their clubs and oppress us with their exactions, if he can only keep free, the conditions of practice are nowhere incompatible with St. Paul's noble Christian or Aristotle's true gentleman.

STERILIZATION OF THE SKIN BY SPIRITUOUS SOLUTION OF MERCURY PERCHLORIDE.

BY

COLIN CLARKE, F.R.C.S., M.B.,

CAPTAIN, R.A.M.C.

SIMPLICITY is the great advantage of the iodine method of sterilizing the skin, but iodine has certain disadvantages. A solution painted upon the scrotum, the anus, or the vulva causes considerable local inflammation, and the patient often suffers pain and discomfort for hours after the operation. Iodine stains all towels and clothing it comes in contact with, and the irritating vapour given off as the solution dries on the skin is most annoying to the operator.

Mercury perchloride in methylated spirit (strength 1 in 500) is a more powerful antiseptic than tincture of iodine, and has practically none of its disadvantages. It can be painted all over the penis, scrotum, anus, etc., and causes only a slight burning sensation when first applied. It can be freely used, and no local inflammation results as long as the spirit is allowed to evaporate. A small superficial burn, however, is caused by the spirit solution if a swab or towel soaked with it is left in contact with the patient's skin during the operation. This can easily be avoided. The perchloride solution does not stain clothing or towels, and no irritating vapour is given off as it dries on the skin. As an antiseptic the perchloride solution is very efficient, and no preparatory dressing of the skin is required before the operation.

The actual sterilization of the skin is very simple. The

skin is painted or swabbed over twice with spirit and perchloride solution immediately before the commencement of the operation.

Method.

1. A hot bath and a shave, if necessary, the day before the operation.
 2. When the patient is placed on the operating table the skin in the operation area is freely painted with the (1 in 500) spirit solution.
 3. A sterile towel is then thrown over the skin and the patient anaesthetized.
 4. Ten minutes after the first application of perchloride in spirit the sterile towel is removed, and the spirit solution is again swabbed all over the skin area for about one minute. The skin is now sterile and the operation can be commenced.
- If the spirit solution has been applied to the scrotum a final swab over with watery lotion is advisable, for any excess of spirit solution left between the scrotum and thighs causes a superficial burn.

The accompanying list is a record of 102 operations performed without any preparatory dressing. The skin in each case was sterilized when the patient was placed on the operating table.

Seven of the appendicitis cases, marked (a) on the list, were of the suppurative or gangrenous variety. After removal of the appendix the peritoneal cavity was drained, and in these cases the wounds naturally healed by granulation. In all the other cases the wounds healed aseptically, and no case of suppuration occurred.

The cases in Group I were prepared as above described with mercury perchloride in methylated spirit (strength 1 in 500).

The cases recorded in Group II were prepared on the same principle—that is, two applications of antiseptic with an interval of ten minutes just before the commencement of the operation. The reagents, however, were different, the first antiseptic paint being a 5 per cent. solution of iodine in rectified spirit, which ten minutes later was thoroughly swabbed off with a 1 in 500 solution of mercury biniodide in rectified spirit. These reagents, however, are much more expensive. Rectified spirit (hospital price, Malta) costs 3s. 7½d. a pint, whereas methylated spirit, which gave equally good results with mercury perchloride, costs only 3½d. a pint.

The ten minutes interval mentioned above could not always be accurately observed owing to occasional delays—for example, in the administration of the anaesthetic. However, it was adhered to as closely as possible in each case.

Operations.	Group I.	Group II.	Total.
Varicose veins	4	9	13
Varicocele... ..	5	9	14
Inguinal hernia	5	5	10
Umbilical hernia	2	0	2
Acute intestinal obstruction	0	1	1
Exploratory laparotomy	1	1	2
(a) Appendicitis (abdomen drained)	6	1	7
(b) Appendicitis (abdomen closed)	3	11	14
Internal semilunar cartilage knee	0	6	6
Fractured patella (wired)	0	2	2
Fractured femur (wired)	0	1	1
Fractured tibia (wired)	0	1	1
Ganglia and bursae excised	4	3	7
Sebaceous cysts, foreign bodies, etc.	9	5	14
Amputation (toes)	3	1	4
Circumcision	2	2	4
	44	58	102

CULTURAL EXPERIMENTS.

The following cultural experiments were undertaken to test the antiseptic power of the perchloride and methylated spirit solution (1 in 500).

Strands of dry, unprepared catgut were soaked in broth cultures of pyogenic organisms for eighteen hours. The in-

fect pieces of catgut were then dipped into the spirit and perchloride solution for $\frac{1}{2}$, 2, 3, or 5 minutes. They were then soaked in sterile water for twenty-four hours to remove the perchloride, and finally cultivated in broth tubes.

Minutes in Spirit Solution :				$\frac{1}{2}$	2	3	5
<i>Staphylococcus albus</i> (catgut)	...	...	...	+	-	-	-
<i>Bacillus coli communis</i> (catgut)	...	...	...	+	-	-	-
<i>Staphylococcus aureus</i> (catgut)	...	...	...	-	-	-	-

+ Growth in culture tube; - sterile.

IODINE AS A DRESSING FOR OPERATION WOUNDS.

BY

FRANK COLE MADDEN, M.D. MELB., F.R.C.S. ENG.,

PROFESSOR OF SURGERY, EGYPTIAN GOVERNMENT SCHOOL OF MEDICINE; SENIOR SURGEON, KASR-EL-AINY HOSPITAL, CAIRO.

My experience of iodine as a first dressing for recent cases of lacerated, and particularly dirty, wounds, having been decidedly happy, and the preparation of cases for operation by the same solution now being my routine practice, I was naturally much interested in the perusal of Mr. Reginald Alcock's address, published in the BRITISH MEDICAL JOURNAL of February 3rd, 1912, on iodine as the sole dressing for operation wounds.

I had already adopted the practice of painting wounds with iodine at the conclusion of the operation before applying the dressings, and had even tried—with much misgiving be it said—leaving them entirely without dressing, especially in children; but it is only during the last two months that I have taken my courage in both hands, with Mr. Alcock's experience to guide me, and in every possible case, both in hospital and private practice, used iodine as the sole dressing, with the most satisfactory results.

It appeared to me that working, as one does, on some of the dirtiest skins possible to imagine—those of the Egyptian fellah—the method would have an opportunity of justifying itself, and proving the claims so eloquently put forward on its behalf; and I must admit at once that it has completely established its position.

Before I began the preparation of operation cases with iodine—a practice which all my colleagues have now adopted—I was accustomed to dress my cases with a piece of sterilized gauze fixed with collodion; but I found that with iodine-prepared catgut the results were not always altogether satisfactory, as some superficial redness or even blistering occurred from time to time, due, I thought, to an antagonism between the collodion and the iodine. I therefore stopped the collodion and substituted ordinary sterilized dressings, but now no dressing, in the ordinary sense of the word, is used at all and the cases do better than ever they did.

The first case in which I employed this method was that of an old woman, on whom I operated for strangulated umbilical hernia. The abdomen having been prepared by painting freely with a 2 per cent. solution of iodine in rectified spirit, the operation was performed in the usual way, a free transverse incision being made in the skin, the sac opened, and a large mass of dark omentum removed. The radical operation was done, and the skin brought together by four deep mattress sutures of silkworm gut, and the edges fixed with Michel's clips. The wound and its surroundings were then thoroughly painted with iodine, and a piece of dressing thrown over it till the patient was taken back to bed. She was at once put in the Fowler's position on a special bed—the operation was done under stovaine anaesthesia—and a cradle placed over her to support the bedclothes, the wound itself being entirely uncovered. It was painted twice a day for the first four days and then once daily for a week, and in spite of the old lady's scratching of the wound and a rather disquieting interest in the mechanism of the clips from time to time, the wound healed absolutely perfectly, the deep sutures being removed in four days, the clips in six, and she was up and about on the tenth day.

Fifty other cases have been treated in much the same way with equally good results. Knowing my patients and their complete ignorance of the veriest elements of cleanli-

ness, I have generally left a piece of dressing lying on the wound, but not fixed in any way, and in some other cases where there seemed to be a prospect of a good deal of oozing—notably in one case of plating an old spiral fracture of the tibia—I have continued the painting with iodine, but have put on some dressing and fixed it with a firm bandage for a few days.

Again, in cases in which it has been necessary to put in a drain, as in removal of the breast for cancer and in tuberculous glands of the neck, a piece of dressing has been placed over the drainage openings, the rest of the wound being entirely exposed and painted with the iodine. They all healed well and continued to go on satisfactorily after the drain was removed and the opening painted like the rest of the wound. Sometimes, also, serum that has accumulated in the wound has been let out by inserting a probe between two clips, but without in any way interfering with the aseptic healing of the entire wound. The iodine does not seem to exert any chemical action on the metal clips.

It would be tedious to record the cases individually, but they include 6 operations for ventral and umbilical hernia, many inguinal hernias (both single and double), several hydroceles, 2 complete removals of breast for cancer, 4 goitres, 2 epitheliomas of lip with removal of glands in the anterior triangle, 4 circumcisions, 1 hare-lip, trephining, amputations of legs, suprapubic lithotomy, plating of fractured tibia, plastic operations for cicatricial contractions after burns, and 2 partial amputations of the hand at the carpo-metacarpal joints for enchondroma and sarcoma. The case we are proudest of is one of double hernia and double hydrocele, in which the patient developed delirium tremens the day following operation, and yet all his wounds healed perfectly without other dressing than the iodine paint.

Only one case in the whole series has gone wrong, and that may, I think, be entirely ascribed to our own stupidity and neglect, and cannot in fairness be considered a failure due to the method under discussion.

It was an extensive operation for softened and suppurating tuberculous glands of the neck, necessitating a very wide dissection. Unfortunately the drainage tube I had ordered to be put in for twenty-four hours was not inserted. The following day there was fever and the cavity had filled up with serum, but, hoping against hope that it might be absorbed, the house-surgeon did not introduce a probe to evacuate it, with the inevitable result that next day when I saw the case during my round the fever was still high, and I then evacuated broken-down blood and pus. Clips had to be removed in two places, and, though the final result was better than might have been expected, it spoilt our run of successes.

Personally I can only blame ourselves and hold the method guiltless, especially as a precisely similar case in the same ward, which had been done a few days before, but had been drained for twenty-four hours, did perfectly.

I would prefer not to dogmatize too strongly on the merits of this method on a comparatively small experience, but tender this contribution as confirmatory evidence of the efficacy, the simplicity, and the economy of a procedure which cannot fail to appeal to hospital surgeons and private, and especially country, practitioners alike.

IODINE AS THE SOLE PREPARATION AND DRESSING FOR OPERATION WOUNDS.

BY

FLEET SURGEON FREDERICK J. A. DALTON,

ROYAL NAVAL HOSPITAL, PLYMOUTH.

BEING much interested in the article by Mr. Alcock, F.R.C.S., of Stoke-on-Trent, which appeared in the BRITISH MEDICAL JOURNAL of February 3rd, 1912, on the subject of iodine as the sole dressing for operation wounds, I determined to give it a thorough trial, and have used it in every clean case admitted to my wards for operation, 77 in number, during the three months, February 6th to May 6th, 1912.

After this experience of it at the Royal Naval Hospital, Plymouth, I am so convinced of its efficiency and economy