slowly than with penicillin or organic arsenicals. Serological tests became negative in most cases. Dosage, in one series, was 2 g. initially, followed by 2 g. four hours later, and then 1 g. every four hours, day and night, until 70 g. had been given in 11 days. In another series dosage of 60 mg. per kg. body weight per day for eight days seemed satisfactory. Rodriquez *et al.* (1952), who used the former scheme of treatment, reported on 101 patients so treated and observed for 12 to 15 months. Treatment seems to have been successful in about 75%.

Oxytetracycline by mouth has given results similar to those described with chlortetracycline. Dosage in one small series was 3 g. by mouth followed by 0.5 g. every four hours for 15 days, giving a total of 48 g. (Robinson and Robinson, 1951). Treponemes disappeared in 4 to 48 hours. Observation was possible in four cases and all became sero-negative with later sero-relapse in one case. The same authors (1953) examined the three remaining patients two to four years after treatment. All were well with negative serological tests and tests of the cerebrospinal fluid. Irgang and Alexander (1953) treated 10 cases of early syphilis with oxytetracycline by mouth, giving 2 g. a day for 14 days. *Treponema pallidum* disappeared from surface lesions in 44 to 96 hours. In most cases the surface lesions responded favourably, but in a few instances they were slow to resolve. Serological response was favourable in those patients who remained under observation. One case proved resistant to treatment. Baler (1956) gave oxytetracycline intramuscularly in the treatment of 16 patients suffering from early syphilis. Dosage was 200 mg. twice daily for 10 days, the total being 4 g., except in one case in which it was 100 mg. twice daily for three days, followed by 200 mg. twice daily for seven days (3.4 g.). All lesions healed rapidly and *Treponema pallidum* disappeared in an average of 40 hours. The treatment failed in four cases, but was satisfactory in the others after 8 to 16 months. One patient with secondary syphilis was delivered of a full-term healthy infant 119 days after the start of treatment.

As to *carbomycin*, Buckinger *et al.* (1955) treated 11 patients suffering from early syphilis with this preparation by mouth, giving 2 to 3 g. daily. *Treponema pallidum* disappeared from the lesions in 36 to 72 hours after the initial dose. Healing of lesions was satisfactory and toxic effects were slight. This was a preliminary and inconclusive report which appears not yet to have been confirmed.

Thus, if a patient sensitized to penicillin develops syphilis, the most reasonable course of action seems to be to administer oxytetracycline or chlortetracycline in the dosage described. It has been suggested that such patients may be treated with penicillin by suppressing reactions with the concurrent administration of corticotrophin. Such a procedure is obviously fraught with danger, and, if it is to be attempted at all, should be done in hospital under close supervision.

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USE OF SURGICAL REHABILITATION IN YOUNG DELINQUENTS*

BY

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As a result of the physical and psychiatric examination of several thousand Borstal inmates over a period of years, certain impressions become quite clear, and one of these is a sense of neglect. This neglect is now widely accepted by most workers in criminology to be basically one of lack of moral values and practical example in the family circle. As a result of these examinations it became evident that in many cases this neglect spreads also into physical matters. Thus squints, nasal deformities, and other varied disabilities are left uncorrected in childhood and allowed to become either foci of resentment or of chronic irritation.

In 1950, at Camp Hill Borstal Institution, a brief pilot series of selected cases was submitted for surgical opinion and treatment, and the results appeared encouraging enough to suggest that a more detailed study should be carried out with the express purpose of determining whether surgical rehabilitation, in removing these defects, could also produce secondary psychological effects which would be of use in combating delinquency. This project was put into action during 1951 to 1955 at H.M. Borstal Institution, Portland, and is the subject of this paper.

Present Investigation

It was soon clear that such a project demanded the interest and support of the various surgeons who would be concerned with the work, and some time was spent in personal explanations. The co-operation given by the surgeons in the area is greatly appreciated. Similarly, appreciation is due to the Dorset Hospital Management Committee.

The next question to be settled was the timing of the treatment. In normal medical practice it would be reasonable to expect individuals to seek assistance when troubled by a disfigurement, but to rely on this in a young delinquent population would be unrealistic. The very sense of neglect and, in many cases, rejection felt in the home circle has usually long since buried any hope that something may be done. Accordingly it is necessary for the doctor to raise the question of rehabilitation and not the patient. Furthermore, it is not reasonable to request undue priority for remedial cases competing for hospital bed accommodation with other surgical cases, and therefore it is expedient to start action early enough to allow time on waiting-lists.

It was therefore concluded that the question of possible remedial action should be raised at the original

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examination. This was done by a casual reference to the condition with the object of noting the reaction, which varied from extreme embarrassment to an obviously over-defensive denial of any disturbance. Whatever the reaction, questions on whether plans had ever been made to correct the trouble usually provoked immediate interest, and the offer of specialist opinion was usually greeted with obvious enthusiasm.

The next step was to put to the individual the need for proving trustworthy conduct while awaiting attention, and it is at this stage that the presence of a ruling body in the background (in this case the Prison Commissioners) is invaluable. It is essential to be able to tell the candidate for treatment that the whole case must eventually be submitted to the higher authority for final approval of the temporary release from custody involved, and that the request must be accompanied by good conduct reports. This might well be taken to be no more than a bribe, but the significance is much deeper in that it affords to a delinquent a clearly appreciated example that the lasting things in life have to be earned and do not fall into the lap.

In every case this challenge was accepted, although inevitably some individuals did display irregularities of conduct requiring punishment. These individuals, however, were invariably very perturbed that the lapse might spoil their chances, and in only two cases was it found advisable after consultation with the Governor to allow the matter to lapse. In both cases, however, arrangements were made for medical attention in the home area after release.

The next stage in the procedure was to see the inmate when the specialist opinion had been given that remedial surgery could be carried out, and this was made something of a congratulatory episode.

Later, when an admission date to hospital was received, the inmate was again seen, being reminded that the institution had a good reputation at the hospital concerned and that he carried the future of others to follow him as well as his own responsibility. It might well be thought that such an appeal would fall on deaf ears; but such was not our experience, and the reports on conduct from ward sisters were almost uniformly excellent.

The period of return from hospital to institution was, as expected, a difficult one. Firstly, the development of some calf-love attachment to staff seems almost an "occupational risk," and is scarcely surprising when young delinquents see for the first time in their lives practical evidence that there are women of a high sense of calling in the world. Secondly, there is the anti-climax, in that the target has been achieved which has for some time provided the spur. However, with careful handling this phase passed off and the inmates returned to their own normality.

The final stage of the procedure was the last interview. Here it was found wisest to put the whole matter quite openly by reminding the inmate that society as the wider family had accepted his need for assistance and carried it through and would now hope to receive him as an honourable member. Lastly, he was reminded that the better his performance on release the easier it would be for others to receive similar attention.

It would be naive to consider that all the stages of the procedure were accepted by every inmate, but experience of this project and others have shown that, by and large, the young delinquent will rise to a challenge and a target worth aiming at.

Results

In order to study the results of the project arrangements were made with the Director of After-Care, Borstal Division, to have access to the files of that department for a period of two years after release of each individual. As a result of previous experience this period of two years has been found to be the most useful time, since the number of Borstal trainees failing to settle after that is too small to be significant. The co-operation of the director and his staff in this stage of the project was most helpful and much appreciated.

At the end of two years after the release of each individual, 30 (54.5%) out of the 55 treated cases were free of reconviction. The corresponding figure for all untreated cases released from the institution during the same period was 34.5%. It is therefore immediately apparent that the chances of success were much higher in those inmates who had received the benefit of remedial surgery.

Results

	No. of Cases	No. Free of Reconviction
General surgery	6	4
Orthopaedic	7	4
E.N.T.	17	9
Plastic	15	8
Ophthalmic	10	5

The Table records the comparative results under the different surgical departments. It will be noted that each department achieved success in half or more of the cases, but the figures in each group are not large enough to warrant too much comparison of results.

One or two interesting points emerge, however. Before the results were obtained it was anticipated that squint operations would probably show the highest success rates after release, but this did not prove to be the case. The general surgery group was, in contrast, more successful than anticipated, and included some general surgical intervention for varicose veins which would not have received attention if assessed purely on direct symptoms. It is not surprising that the plastic surgery cases produced satisfactory results, since the whole procedure is rather more dramatic. The range of cases in the group was very wide, from closure of a congenital cardiac foramen to excision of facial scars. Perhaps the most striking subgroup was the nasal remould series, where only one in the series of nine cases is showing evidence of recidivism.

Conclusions

Although this project has not covered a very large number of cases, the results are good enough to justify the claim that remedial surgery, coupled with a fully developed supporting background of minor psychotherapy, can appreciably improve the chances that a young delinquent can re-enter the wider family circle without further lapse.

Furthermore, analysis of the results shows that the best prospects are in cases where surgery removes not only a source of embarrassment but a chronic focus of minor physical irritation. Thus the nasal remould cases

removed not only crooked and ugly nasal deformities but also a source of chronic nasal obstruction.

It is not claimed that remedial surgery in itself is a cure for delinquency, but rather that it renders the individual susceptible to the normal character training processes, by removing foci of resentment and physical irritation and by demonstrating that society is prepared to help.

I am indebted to the following surgeons for their help in this project: Mr. F. Hanna, Mr. P. Hywel-Davis, Mr. R. Whittaker, Mr. J. Ellsworth Laing, and Mr. T. Colley.

INTERNATIONAL MEDICAL MEETINGS

POLICY OF C.I.O.M.S.

The Council for International Organizations of Medical Sciences (C.I.O.M.S.), a federation of non-governmental organizations established under the auspices of W.H.O. and Unesco, has as its main tasks the co-ordination and improvement of international congresses in its field and the arrangement of multidisciplinary symposia. Below we give, in shortened form, a policy statement issued after the council's general assembly last autumn.

Role of the Large Congress

Many think that large international congresses, run on conventional lines, with their thousands of participants, innumerable communications, and simultaneous sessions, are now outdated, goes the statement. They cannot have the same objectives as the small congresses of earlier days. Their usefulness is for teaching, in allowing a wide dispersal of standard knowledge and techniques, not for breaking new ground, for which there are other types of meeting.

Some international congresses already take the form of large-scale refresher courses. As such they appeal to the younger workers and to those who live in isolated communities, and because they dispense standard knowledge they need not be held more often than perhaps every four or five years. The number of participants needs restricting, however, and the only practicable way of doing this is by limiting the subject-matter. Congresses which attempt to study several subjects, or which choose a subject too broad in itself, achieve very little. Also poaching of subjects from another organization's territory leads to wasteful duplication of effort.

The holding of a congress provides an opportunity for satellite meetings such as closed symposia, seminars, or training courses in laboratory methods. Such symposia should be organized quite separately, before or after a congress. They can draw part of their membership from the congress, and also compensate for the congress's more restricted programme.

Duplication of Effort

Another problem is the multiplicity and the heterogeneity of international associations, societies, and unions. Between the highly active organizations and those that are barely more than a list of names on a letterhead, there are many which are run on a part-time basis with insufficient secretarial assistance. Certain broad disciplines are covered by a number of overlapping international organizations with insufficient liaison between them. C.I.O.M.S. proposes, therefore, to attempt a functional regrouping in certain fields, and will continue to keep its register of congresses and to convene "congress planning meetings." To help younger men attend selected congresses the council will also grant a number of "congress fellowships."

It was agreed at the assembly to create a new category of membership—national associate membership. Up to the present, membership of the council has been restricted to international organizations covering a specified discipline.

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Associate membership will now be open to one national institution per State, representative of the whole of the medical sciences. This institution may be the national academy of sciences, the principal academy of medicine, the national research council, or in certain cases a national committee. Bodies admitted to associate membership will be able to take an active part in shaping the council's policy and programme. Other changes in the statutes were made and new scales of subscriptions adopted.

To-day's Drugs

With the help of expert contributors we publish below notes on a selection of drugs in current use.

Albamycin (Upjohn).—Each tablet contains novobiocin (calcium salt) 250 mg. **Albamycin T.**—Each tablet contains novobiocin calcium 125 mg. and tetracycline hydrochloride 125 mg.

Biotexin Tablets (Glaxo).—Novobiocin (sodium salt) in tablets of 125 mg.

Cathomycin (Merck Sharp & Dohme).—Novobiocin (sodium salt) in tablets of 250 mg.

Cathopen (Merck Sharp & Dohme).—Each tablet contains novobiocin (sodium salt) 125 mg. and benzylpenicillin (potassium salt) 125,000 units.

Novobiocin attains higher levels in the blood, dose for dose, than any other antibiotic, because very little is excreted in the urine. Excretion is mainly biliary, and followed by reabsorption. It is highly active against staphylococci and less so against streptococci and pneumococci. It also has some action on *Proteus*, but almost none on other coliform bacilli. Undoubtedly its most valuable use can be for the treatment of staphylococcal infections resistant to other antibiotics, but resistance to novobiocin itself can also develop. A febrile urticarial sensitivity reaction occurs in about 5% of patients given full doses for more than a few days.

The combinations of novobiocin with tetracycline or penicillin should act satisfactorily, though probably no better than the same total dose of either antibiotic alone. They might discourage the development of bacterial resistance, but in each case only if the organism causing the infection were sensitive to both components. If it were sensitive to only one, the dose of this might be inadequate. The penicillin in cathopen is benzylpenicillin, which is less well absorbed than phenoxymethyl penicillin (penicillin V), and the dose of this seems distinctly on the low side for independent effect. Experience has shown that as much discrimination is needed for prescribing mixtures of antibiotics as for prescribing them singly. It is normally best to determine the nature of the infection and to prescribe accordingly.

N.H.S. basic price: albamycin, 16 tabs., 48s.; albamycin T, 16 tabs., 44s.; biotexin, 32 tabs., 35s.; cathomycin, 16 tabs., 35s.; cathopen, 16 tabs., 20s.

Ilidar (Roche Products).—This is an anti-adrenaline compound with an action resembling that of tolazoline. Its formula is 1-allyl-3:4-5:6-dibenzo-1-aza-*cyclo*hepta-3:5-diene phosphate, and tablets of 25 mg. are available.

This is an alternative drug for the treatment of diseases involving peripheral vasoconstriction. Like tolazoline it should not be given when a fall of blood pressure may be dangerous, as in asthma or coronary disease, and it should be used with great care when peptic ulcer is present. It is administered orally, 2–3 tablets being given three times daily, after the patient's ability to tolerate the drug has been tested with a small initial dose.

N.H.S. basic price: 50 tabs., 5s.