Casualty Services and their Setting

A study in Medical Care

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PART I: SUMMARY OF MAIN CONCLUSIONS AND RECOMMENDATIONS

Summary of Main Conclusions and Recommendations

The object of this study was to find out whether criticisms of the casualty services are justified. The study was based on twenty casualty departments serving over five million people in fourteen areas of England. These areas were chosen to provide a fair and representative sample of all the casualty departments in the country.

A summary of the main conclusions is given below. It does not stand on its own but should be read in the context of the whole report, particularly Parts IV and V.

1. The study established that there is a need for leadership and urgent executive action on the part of hospital authorities to review, reorganize and improve the service for casualties. The medical staffing of such services demands special attention, particularly the provision of adequate consultant cover and the supply, supervision and training of junior staff.

2. The history of casualty services records justifiable public dissatisfaction about their adequacy and also widespread apathy on the part of hospital authorities to correct faults. This has been due to the low priority of the subject in schemes of reform, and this in turn seems to arise mainly from: (a) the poor status of casualty work, and (b) the imprecision of the term 'casualty'. Casualty departments tend to embrace a wide range of categories of cases seeking attention and treatment. Because of the increasing number of accidents the most urgent need is to improve the service for those casualties requiring immediate attention and treatment, i.e. 'urgent emergency and accident cases'.

3. There is therefore a need for an immediate review of the services which hospitals seek to provide in their 'casualty' departments and a classification of all hospitals to denote their facilities for the reception of 'urgent accident and emergency' cases. Such

a review should examine relevant local issues such as the 'open door' policy and all the arrangements for medical care. It should also include an evaluation of the function of the casualty department as a source of special teaching material.

4. From the start the horizons of the surveyors were forced well beyond those of the individual hospitals visited. The study showed that if adequate staffing and facilities were to be provided it would be necessary to concentrate services. The organization for casualties should be based on well-defined catchment areas and should be planned to take account of all the services for medical care already available there. Such organization will almost certainly entail the rationalization of present services to ensure immediate diagnosis and effective treatment for those in urgent need of it. It will call for the fullest co-operation between regional boards and teaching hospitals in all regions, to ensure that there is a high standard of care available to the community, including a regional postgraduate training and research centre for emergencies and for accidents. At the hospital level such rationalization will certainly involve the closing of many casualty departments as they are at present conceived, and will require special understanding from management committees and hospitals.

5. Nowadays a hospital (or indeed, the hospitals) serving an area can rarely exist in isolation in providing the kind of medical care which, to be effective, must be a continuous process. Because of the recent growth and development of industrial health services there is a need for future hospital arrangements to include provision for close co-operation with such services, strengthened, perhaps, by clinical assistantships in hospitals for industrial medical officers.

6. Equally, the service provided by general practitioners has a bearing on the way in which casualty departments are used by the public. Because of the importance of providing a service for the relatively minor, non-urgent conditions, there is need for the fullest consultation between the hospitals and local medical committees (and other appropriate bodies) as to how general practitioners can help to relieve the hospital of the burden of such cases, and so enable the hospitals to concentrate on what they are

best fitted to do. The question of employing general practitioners as clinical assistants should be explored, not only because there is undoubtedly a shortage of suitable junior staff, but because such a move would strengthen the essential links between the hospital and community services.

7. It is difficult to generalize about the kind of organization required by the hospital service to meet the needs of any one region, or even community, because there is insufficient information available at present about the variation in frequency and type of casualties in the case-loads of departments. Certain main principles are put forward in Part IV, Section 7, as fundamental to the arrangements for dealing with urgent accident and emergency cases. The most important is that there should be full twenty-four hour cover by doctors adequately trained for the work they are called upon to do, and who are assured of the stability and importance of this phase of their medical career. The organization needed will obviously vary from area to area and facts should be obtained about the incidence, and in particular the kind, of emergencies and accidents coming to the hospital in each area.

8. It would be a mistake to assume that all the relevant facts can be easily gathered by simple statistical methods. To obtain the necessary background information, regional hospital boards should, in association with teaching hospitals, consider setting up multi-interest surveying teams, properly constituted and consisting not only of practising clinicians but others with experience in the interpretation of demographic data. Such teams should have secretarial help and be properly advised on statistical, sociological and administrative matters, as well as on organization and methods. They should also have wide terms of reference, to include not only the study, in all areas of a region, of the organization for dealing with major casualties—which in any case, because of the drama attached to them, may already be relatively well provided for—but also how the run-of-the-mill material which makes up the bulk of so-called 'casualty work' is at present being dealt with. They should also look at this work in relation to the other services of the hospital, including rehabilitation and resettlement arrangements, and to the effect of prolonged and

preventable disability on the individual and the community. In view of the increasing problem of cross-infection, special regard should be paid in such surveys to the control of sepsis.

9. Methods for helping the work of such surveying groups should be developed, including systems of records designed to produce relevant, up-to-date information. A method of noting features of casualty departments, capable of further development as necessary, is suggested for use by such groups; and an account is given of a simple records system—specially designed for sampling—to extract the basic data needed for the study of the range and depth of the work of casualty departments.

10. In view of the poor accommodation in the newer departments visited, it is strongly recommended that the functional requirements of casualty departments should be carefully studied in conjunction with all practising personnel, and the results applied in new buildings, as well as in the adaptation of existing accommodation.

PART II: THE BACKGROUND TO THE STUDY

The Background to the Study

1. *THE ORIGIN OF THE STUDY*

In December 1957 the Trust invited a number of senior medical and lay-men actively concerned with health matters, to discuss future trends in medicine at a two-day meeting at Christ Church, Oxford. Time and again, in debating quite separate issues, such as the future of surgery and the rehabilitation services or possible changes in the organization of hospital and health services, serious concern was expressed about the state of casualty departments up and down the country.

Subsequently, when the various questions raised at the conference were considered by the trustees, one of the problems calling for immediate investigation was that of casualty services. In particular the criticisms showed that the function and staffing of the casualty departments needed special study against both the background of their historical development and the present pattern of medical care; and so it was decided, in the summer of 1958, to undertake a survey of casualty services. This report embodies the findings of the group who were invited by the trustees to make the investigation.

2. *THE GENERAL NATURE OF THE CRITICISMS VOICED*

At the conference the main criticisms of casualty departments were of a general nature, but illustrated by a number of examples which indicated serious faults in conception and in practice. It was said that the accommodation is generally poor and that the experience of the medical staff tends to be too limited; that the casualty departments' supporting services are inadequate or frequently non-existent, and their relationships with other special departments are not close enough. The fact that a certain number of emergency cases must receive expert resuscitation and immediate treatment is not recognized in the organization of many of these departments; frequently there is no adequate follow-up of treatment and no links with the rehabilitation services.

Thus, while there have obviously been considerable improvements in the hospital services generally since the end of the war, the defects in casualty services which then existed have not been remedied. In the last ten years especially, hospital services have been upgraded and generally improved but in the casualty services there is still a very low standard of service, arising mainly from a deficiency in organization and medical staffing, proper treatment facilities and rehabilitation arrangements.

3. *THE APPROACH TO THE STUDY*

A study group was formed to discuss how best to carry out a survey having as its main objects: to define the problem clearly, to determine the measurable facts, and to suggest realistic means of improving the organization especially to meet the needs of serious cases requiring urgent attention.

In forming this group an attempt was made to gather together a number of people with a wide experience of, and particular interest in, casualty services. To that end it included general, orthopædic and plastic surgical as well as general practitioner and social medical interests.

It was easier to point to the general direction of the targets than to focus sharply on them. At the outset, there were no clear ideas of how to carry out a study, or indeed how best to begin. There is no central policy either at the Ministry of Health or at regional board level for dealing with 'casualties' as a special class of patient, on a regional or even an area basis, and as far as could be discovered no regional hospital board had established the facts on which to develop a policy designed to prevent overlapping and duplication of existing casualty services within the region. Indeed, except in a few places it was flattering to talk of a 'casualty service' at all! Yet the one fact which can be established and is significant is that the 'casualty' is a very 'popular' department in the widest sense. In 1958, according to the Ministry of Health report,* there were some eleven million casualty attendances, that is one-third of all inpatient and outpatient attendances; it is remarkable that it is not known how many of the patients represented by these figures came to the hospital in a state of shock or stress.

Although most of the cases constituting the real core of the

* Cmnd. 806.

problem arise from accidents, there are few links between the hospital authorities who have to deal with them and those other bodies primarily concerned with their prevention, except in a few areas for some special arrangements about burns. Such liaison could help even if it did no more than commission the collection of such simple facts as would show, for example over a wide area, the geographical incidence or concentration of accident 'black spots'.*

As far as the hospitals are concerned, although statistics are collected by every hospital on Form S.H.3, which gives, *inter alia*, some details of casualty services, there is not much information available about the cases themselves. In the preliminary study it was apparent from the published statistics, and from special enquiries made in various regions, that information capable of throwing light on the working of casualty services is very sparse, and even such as exists requires clarification at each hospital level. Most of the information collected for the hospital services is produced in aggregate form; for the searching examination needed in a survey of this kind the published statistics on casualties, if not actually misleading, throw no light at all even on such elementary but important matters as the type of injury, treatment, source or disposal. Indeed, the definition of 'casualty attendance' is so all-embracing that even a simple count of such cases might be misleading.

* * * *

The investigation began by looking at a teaching hospital in the provinces, well spoken of for its casualty service. Subsequently a technique of visiting and observing was developed and applied in the hospitals which were added to widen the survey field. An initial visit was usually paid by Mr. Norman Lake, accompanied by a member of the Trust's staff, followed a few days later by a visit by a team consisting of Mr. L. W. Plewes, Mr. J. N. Barron, and Dr. R. F. L. Logan. The intention was to study the service provided to the community and to see what basic information could be collected about the organization and work of the casualty department. At the same time the opportunity

* Since this report was written, H.R.H. the Duke of Edinburgh as President of the Automobile Association has announced that a Road Injuries Research group has been set up to work in conjunction with the Institute of Accident Surgery.

was taken to see something of the kind of clinical work undertaken in the department as well as its relationship to other departments of the hospital and to other services in the area, such as those provided by the local general practitioners and industrial medical units.

It was clear from the very beginning that the casualty service of a definable area rather than that of one hospital should be studied and on later visits, as the technique of the group approach developed and became more assured, it was decided to extend the survey to bring in a range of areas as wide as possible. In most large towns in the provinces such services are in the hands of one management committee, but on occasion, especially in the larger cities, there may be other hospital authorities involved, sometimes with virtually no liaison between them to ensure an adequate casualty service for the area.

* * * *

The group's aim was to get information and impressions under the following headings:

(1) The general topographical background of the area.
(2) The climate of public opinion towards the hospital service.
(3) The relationship between the various parts of the Health Service. In recognition of the important role of the general practitioner, in most areas arrangements were made to meet several local G.Ps before the casualty departments were visited.
(4) The physical characteristics of the hospital and the casualty department.
(5) Notes on the personnel.
(6) The hospital's conception of the function of its casualty department.
(7) The records kept.
(8) An analysis of a sample of the case-load.
(9) The relationship of the department to other units in the hospital.
(10) The relationship of the department to other accident services in the area.
(11) The link with other stages of casualty care through to rehabilitation and resettlement services (if any).

(12) The attitude of the hospital authorities to the problem of 'casualty' generally.
(13) Any future plans which are being prepared.
(14) General conclusions about the effectiveness or otherwise of the service(s) and the lessons to be learnt.
(15) The arrangements for an effective twenty-four hour service for the community.
(16) Public opinion as represented by the number of complaints received and by the legal actions raised.
(17) Any other special features which might be worthy of note.

4. *A NOTE ON THE AREAS CHOSEN FOR STUDY*

Because it was obviously impracticable to attempt to carry out a survey on a national scale in a reasonable time certain areas were chosen for study to typify different community patterns throughout England.

When it became clear that areas rather than hospitals should be looked at, the first arbitrary choice was made on the basis of urban population figures, but these soon proved to be insufficient by themselves and estimates had to be made of the population of the catchment area of the hospital(s) covered. Again, apart from the physical differences in geography, the variety of industry and agriculture, and the economic and social levels of each area, many other local factors which influence the functioning and efficiency of the casualty services had to be taken into account in determining the nature and extent of the local problem and how it ought to be solved. For example, whether the family doctors enjoy good relationships with the local hospitals; what access they have to the service departments of hospitals; whether the hospitals were staffed by general practitioners before the National Health Service; to what degree the specialist services were available before 1948; what effect local medical industrial departments have in easing the load on the casualty services; and the public attitude and interest in the health services of each community.

Visits were made to fourteen areas in all which covered twenty main hospitals and several smaller hospitals.

The total population of the catchment areas of the casualty services covered by the survey amounts to over five million people. Fen-land and mountainous moors, seaside villages and highly in-

dustrialized cities have come into the general picture. By selecting areas on the basis of (i) population figures and (ii) types of communities a wide variety of industry, ranging from a nuclear power station to small cottage industries in holiday resorts, came under survey. Most social classes and occupations are represented as users of the casualty services surveyed and the communications and transport involved in bringing patients to the departments varied from a weekly village bus to a metropolitan transport system. Injuries and emergencies arising from practically every known kind of mishap will doubtless at some time have faced the staff of the casualty departments surveyed.

The Areas

Type	*Approximate population of town or city*	*Estimate of population of the catchment area of the hospitals (provided locally)*
1. City and County Borough	1,100,000	1½–1¾ million
2. City and County Borough	450,000	600,000
3. Sector of London within a radius of approximately 1½ miles of a teaching hospital, containing three other hospitals		900,000
4. County Borough	215,000	260,000
5. County Borough	180,000	390,000
6. County Borough	150,000	400,000
7. County Borough	135,000	450,000
8. County Borough	115,000	350–400,000
9. County Town	70,000	200,000
10. County Borough and surrounding rural district	65,000	120,000
11. Municipal Borough	60,000	110,000
12. County Market and Assize Town	35,000	100–120,000
13. Municipal Borough	30,000	75,000
14. Rural District Market Town	20,000	70,000

Note:—In addition Mr. Lake visited a County Borough (population 120,000; estimated catchment area 350,000).

1.

One of the largest industrial cities in the country with a long tradition of public and municipal service, covering every variety of factory and trade; the focus of five trunk roads. Its population is increasing as new housing estates extend its boundaries. Every type of social class is represented. Relations between the local doctors are excellent, but there seems to be a gap between the

general practitioner and the hospital services, access to service departments being limited to clinical pathology only in one of the four chief general hospitals in the city; there is also little practical liaison between the teaching hospital and the regional board hospitals, although this seems to be improving. The casualty service for the whole area is sectored, but not rationalized; a plan is being drawn up for an area service.

2.

A university city and important textile industrial centre with a population of 450,000. The city has always enjoyed steady prosperity and there is no heritage of poverty here as encountered in other areas visited of comparable size. Real co-operation between the two main hospital authorities is not conspicuous; the links between the hospital and general practitioners seem tenuous. There are known to be good industrial medical departments serving the surrounding factories, but because they appear to operate in isolation from the statutory health services, there are no data available from which to estimate whether or not they are relieving the hospitals of any great load on their casualty departments.

3.

A sector of London containing a teaching hospital, the main work of which is not affected by any other teaching hospital. The sector contains three regional board hospitals, two of which are relatively close to the teaching hospital. There is at present a move afoot on the part of the regional hospital board to make arrangements for the rationalization of casualty arrangements, to be centred on the teaching hospital. The neighbouring regional hospital board, whose boundary cuts through the catchment area, is not included in this move.

4.

An important seaport with a large dockyard and light industries on the outskirts of the city. The population remains static around 218,000, but there is a high seasonal influx of holiday visitors. An extensive rebuilding programme is in progress which is altering the residential and commercial pattern of the old city. The catchment area of the hospital group is the largest, in geographical

terms, in the survey, with a boundary of some 120 miles. Local political pressure has already brought about the integration of accident services in this area. There is a fair liaison between the general practitioners and the hospital, but little apparent contact with the comprehensive medical service available to the dockyard, which treats not only the employees but their families as well.

5.

The population of this catchment area, estimated at 390,000, is contained by the boundaries of one urban and two rural district councils. Shipbuilding is the main industry of the urban district whilst the rural districts cover a scattered assortment of coal-mining villages and townships. On the edge of the town are two moderately sized trading estates in which light industry is now being built up. One of the worst hit areas of the depression of the '30s, there is now reasonably full employment and an all round increase in living standards. Although not on a trunk road, traffic is heavy in the summer months between the town and the many small coastal resorts in the area. The organization for accident and emergency services is a complicated network of 'alternate intake' arrangements, a special feature being that all orthopædic services are concentrated in one special hospital in the least densely populated district. There appears to be little co-operation between the hospital and general practitioner services, and although there are known to be good industrial medical services for those employed in the shipyards and the coal mines, their links with the hospital casualty departments are slight.

6.

A highly industrialized, prosperous town, the population of whose catchment area is growing steadily and is at present 400,000. The major industries, steel and synthetic textiles, are rapidly expanding and as automation is increasing in all the factories, so the proportion of unskilled, or 'process' workers, grows. The two largest employers have well organized medical departments, whose staff attend lectures by the major hospital's casualty officers, and with whom very good relations exist. This hospital has recently opened a new accident centre, which is steadily drawing off the casualty case-loads of the other nearby hospitals. The hospital

medical staff, by personal contact, lectures and meetings, are helping the local general practitioners to make the best use of the accident service.

7.

A county borough in a prosperous industrial area. Relatively untouched by the slump of the '30s, there is now an expanding industrial community and an air of sober prosperity. Its record of public service, especially with regard to health and hospital services, is one of the highest of the areas visited. Many of the general practitioners hold clinical assistantships on the staff of the hospital and all have open access to pathology and X-ray diagnostic services. There are excellent links between the hospital and local industrial medical departments, most of which have part-time general practitioners as their medical officers.

8.

A county borough combining the problems of an industrial town with those of a focal road junction. There was considerable depression here in the '30s, and although there is now comparatively full employment, the hard days have left their mark on the community. Relations between all parts of the Health Service are good, although none of the busy family doctors actually hold appointments on the staff of the hospital. There is open access to all the hospital's diagnostic services. There are many large industries, but there is no industrial medical department active enough to have any marked effect on the work of the casualty department.

9.

A tranquil county town, off the main arterial routes; its population, almost equally divided between heavy industry and agriculture, is static. There is only one general hospital to serve the town and the scattered villages of the rural district. The general practitioners have complete open access and some hold clinical assistantships on the staff of the hospital, three actually in the casualty department. Good relations exist between all branches of the Health Service. Although far away from a teaching centre, specialist services were available here before 1948.

10.

In economic terms the poorest area visited, a seaport town which has experienced its full share of unemployment. In its isolation, not only geographically, but also from a teaching centre, the benefits of specialist hospital services were not felt until a number of years after the National Health Service was established. Since the beginning of the century, the town has also had a history of conflict between the various interests concerned with health matters. Yet in spite of this, and due to its isolation and clearly defined boundaries (resulting in an almost fixed population), good liaison exists between general practitioners and the hospital, since nearly all the family doctors held posts on the junior staff before taking up practice in the town. The excellence of the one local industrial medical department, which serves a firm employing well over a third of the inhabitants, is notable and in contrast with the service given by the hospital.

11.

A heavy industrial 'boom town', its population growing at the rate of 1,000 new inhabitants a year, in which there has been a sharp rise in the standard of living since the war. Relations between family doctors and the hospital seem uneasy and the gap appears to be widening as the town grows. The activities of the three main industrial health departments take a great load from the casualty department and, with their active rehabilitation programmes, supplement the socio-medical services of the town. These, poorly served by transport and with most accidents occurring at work in the foundries and the railway yards, lag behind the social and industrial expansion.

12.

A lively market town in a predominantly rural area, without any noticeable shift in population but, since it is a tourist centre and on one of the most important holiday routes, there is a wide seasonal variation in the load on the hospital. Although staffed by general practitioners before 1948, the hospital's connection with the family doctors has now been severed, except for open access for pathology, E.C.G. and X-ray. The major proportion of injuries treated at the casualty department arise from accidents with agricultural machinery and from road crashes.

13.

A mixed industrial town on one of the main highways. Two smaller urban boroughs are also included in the catchment area of the hospital which, in addition to serving the local needs, having full X-ray and pathological facilities, is used as a branch of the main hospital eight miles away. A new casualty department was built in 1958. The population is static, employed in a variety of industries, but only one factory has a recognized medical department, and even here only a small amount of casualty work is being done. The family doctors have complete open access to the hospital's services, but only one general practitioner is on the staff as a clinical assistant.

14.

A small market town with a scattering of light industries. The population is around 20,000 with a general practitioner hospital serving twice that number from surrounding villages. The hospital has every family doctor in the town on its staff; there is only one full-time consultant. The picture here is of a completely integrated medical service, with an almost rustic temperament, quite untouched by the influences and pressures which are endemic to a larger industrial community.

5. *THE STUDY*

(*a*) *The Objectives*

Careful consideration has been given to the question of how to present the results of the study which, as has been indicated, was developed empirically and not conceived or planned to be definitive. It is, indeed, doubtful from the experience of organizing this reconnaissance whether, in view of the resources called for, it would be at all useful to carry out a nation-wide survey of the work of casualty departments. Yet 'casualty' provision is a subject about which it is dangerous to generalize. Even leaving out issues such as the variation in organization or in personal skills, it is difficult to avoid the feeling that the conclusions of a survey intended to be comprehensive would in the event become a series of discussions on the kinds of service needed for a very wide range of conditions and local communities.

It is the business of the planning authority for each region to

make full enquiries so as to determine the services which should be available and how emergencies should be coped with. The group therefore decided to carry out a series of reconnaissances at depth, with the object of probing the more serious aspects of the problems and diagnosing the reasons for the conditions revealed. It was expected that these reconnaissances might produce enough basic information to indicate the nature of the difficulties which seem to be endemic to casualty arrangements, and might act as a pilot for the practical fieldwork which authorities will need to deal realistically with the problem. At the same time it was hoped from surveying the range of hospitals that principles would emerge which would be helpful to those responsible for drawing up national and regional policies and applying them.

(*b*) *The Group Technique of Surveying*

In carrying out the study the Trust was fortunate in being able to use the prestige, skills and energies of a working group which included a core of practising clinicians. These doctors were able to discuss sympathetically the various clinical and administrative issues with their consultant colleagues in the hospitals, to observe closely the work of the department, and to relate it to that of the hospital services of the area. By meeting separately a number of the general practitioners in each area they were also able to go some way in assessing the work of the department in relation to the needs of the locality; and remaining in being as a group, were over the period able to compare their experiences to see if any general principles could be formulated.

In the event, the technique of the group approach improved with every visit and the methods of observation and survey evolved could, with advantage, be studied by hospital authorities and developed as a means for studying intensively the various services of hospitals which have to be looked at from time to time.

It was quite clear from discussions with the staffs of the hospitals concerned that, if changes in organization or closer attention to details of practice are to be called for, the views of an impartial group of distinguished clinicians of various specialties are likely to have a great impact and influence, provided the staff are convinced of the fundamentally sympathetic attitude of such a group. If the right blend of experience and skills are represented, the visiting operation will take on a special consultative and

advisory character which can go far beyond the collection of information. The impressive aspect of the visits was the warmth with which the parties were received and the frankness with which the work and problems of the departments was discussed.

As each survey was completed, a full report was drawn up by the surveyors as a private memorandum. For obvious reasons these could not be embodied in this report, although they form the basis of this text. Edited extracts, fundamental to the discussion, make up the bulk of the Appendices.

PART III: CASUALTIES IN THE PUBLIC EYE—THE PERSPECTIVE OF HISTORY

Casualties in the Public Eye—The Perspective of History

In view of the criticisms currently being made of casualty departments it is interesting to look at the historical development of the arrangements for dealing with the category of patients now defined as 'casualties'.

During the first half of the nineteenth century and afterwards, the outpatient resources of the voluntary and teaching hospitals were supplemented by various kinds of dispensaries. But the rapid growth of population and the concomitants: poverty, undernourishment, and over-crowded and insanitary housing, coupled with the effect of the New Poor Law, caused hospital outpatient departments to be daily besieged by sick people wanting 'advice and a little medicine'. The original system of each hospital accepting only patients recommended by subscribers, with strictly limited powers of nomination, broke down under the pressure; and so did the careful clinical scrutiny of new patients presenting themselves at the hospital for outpatient care.

The term *casualty patient* was not in common use before the second half of the nineteenth century, but even when the distinction was made between casualty patients and outpatients it was not very precise, and the casualty department, where it was recognized as a separate entity, was still regarded as being part of the outpatient department.

In 1869 the *Lancet* made a survey of the administration of London outpatient departments. Writing about St. Bartholomew's the surveyors said:

> *'The outpatient department has grown enormously during the last few years. In the year 1859 the number of outpatients was 86,480; in 1865 they amounted to 137,789. . . .*
>
> *The patients are divided into two categories which, however, are neither very defined nor very well observed. They are the "casualty" which comprises those who are supposed to require temporary treatment for diseases or injuries of a trifling character, and the "outpatients" properly so called who, after*

receiving a regular letter of admission, are entitled to the advice of the assistant surgeons and physicians for a period of two months.

It is in the casualty division that the increase of numbers has been most marked. ... The casualty patients are attended in a new building. ... It consists of a large, well-ventilated room, capable of seating about six hundred persons. ... On the north side are two small consulting rooms for medical cases, and on the south side are four others in which the surgical patients are examined and dressed. There is also a private room in which special examinations can be made. In the centre there is a rough dispensary in which six different mixtures are kept in large brown jugs; there are also some gargles, lotions and pills, of a simple character; whilst in a cupboard, under lock and key, there is a supply of more active remedies, suitable for use in cases of poisoning and other emergencies. These are ... accessible to the house-surgeons and house-physicians both night and day. The medicines in the jugs are dispensed by two female nurses. The important prescriptions ... between 250 and 300 per day, are dispensed from the apothecary's shop ... at the opposite corner of the hospital. This arrangement is very inconvenient for the patients and appears to us objectionable as establishing a somewhat too obvious distinction as to the importance of the remedies supplied. ... The doors of the waiting room (are) opened at 9 a.m. and closed ... at 10 o'clock ...

It is estimated that not less than a thousand patients frequently attend on a Monday or Tuesday morning, of whom at least two-thirds are medical. The surgical casualty patients for many years past have been attended by the house surgeons and dressers of the inpatients, whilst the medical were formerly seen by the apothecaries of the hospital, who were paid officials. During the past few years medical casualties have been placed in charge of the house-physicians.'

The *Lancet's* observers noted that the accommodation provided for the medical casualty patients was inadequate, and the staff grossly overworked. On one particular morning '120 patients were seen and dismissed in an hour and ten minutes, or at the rate of 35 seconds each, ... with a doubtful dose of physic, ordered almost at random, as if the main object were to get rid of a set of troublesome customers, rather than to cure their ailments.'

The *Lancet* commented that although two-thirds of the patients

were medical cases, the number of surgical cases was steadily increasing in the casualty department: from 29,166 in 1859 to 34,000 in 1869, during which time the number of outpatients 'proper' had decreased from 8,940 in 1859 to 6,768 in 1869. This, the *Lancet* thought, was partly due to the fact that the house surgeons working in casualty were 'naturally desirous of gaining all the experience possible (and) were in the habit of keeping all the interesting cases under their own care, and of sending the chronic and incurable to the outpatient room.'

Similarly overcrowded outpatient departments and overworked staff were observed in most other London hospitals, but none of these other hospitals appear at that time to have separated 'casualty' patients from other outpatients, as St. Bartholomew's did. (*Lancet*, 1869, ii, 577; 677.)

In the year following the survey of outpatient departments, the *Lancet* appointed a committee of distinguished medical men to consider reforms. The committee stated that a very large part of outpatient work 'consists of trivial cases which do not require any special skill, and might properly be left in the hands of ordinary medical men.' Two factors were mentioned during the committee's discussion, which worked strongly against reform; one was the contention that 'the trivial cases are quite as necessary for the clinical instruction of the students as those of a more serious character (and) a large number of cases is absolutely required in order to obtain a sufficient number of instructive cases'; secondly, 'the ordinary medical men' were not very anxious and would certainly have been unable to deal with the number of patients with trivial ailments seeking help. The Metropolitan Poor Act of 1867 had indeed attempted to encourage the use of dispensaries by permitting the London workhouse districts to set up Poor Law dispensaries, but not all the Guardians saw their way to implementing that provision. And the poor, in any case, were reluctant to submit to the disagreeable machinery of the Poor Law if they could avoid it.

* * * *

The use of outpatient departments for consultative purposes was discussed by the House of Lords Committee on the Metropolitan Hospitals during the year 1890, and the desirability of so using them was 'very generally assented to, as was also the desirability of keeping down the number of trivial cases treated at a hospital; but

upon the question whether a letter from a doctor should be the sole passport for admission, and whether the hospital, having once seen and prescribed for the patient, might go on treating him or must send him back forthwith to his proper doctor or dispensary, there was less unanimity.'

In 1910 King Edward's Hospital Fund enquired into the outpatient situation in London. The Fund's committee reported (as the *Lancet's* original observers had done) that 'the outpatients can be divided into various classes . . . one of (which) is that known as "casualties". The term has no fixed definition common to all hospitals, but it usually includes cases which are either too urgent or too trivial to be referred to the outpatient department proper at the hours of attendance of the visiting staff. . . .

> *It is said that there is a tendency for the casualty department to grow until it becomes a duplicate outpatient department, differing from the outpatient department proper in being subject to less regulation as regards hours of attendance and enquiry into circumstances. True casualties, however, if their numbers were recorded, would stand in a class by themselves. . . . They comprise injuries by accident and sudden attacks of illness which require immediate attention and treatment.'*

The Fund's committee recommended (as the House of Lords Committee had done two decades earlier) that outpatient consultative work ought to be developed, and they wished patients to be restricted to those directly referred by general practitioners. They also recommended that the casualty department should stop treating trivial cases and should concentrate upon dealing with emergency cases or 'true casualties'. The Fund's report on outpatient departments was published in 1912—the year in which the National Health Insurance Scheme began to operate. Insurance did not include hospital benefits and the panel doctor system excluded dependent women and children.

In 1932 the King's Fund appointed another committee to enquire into outpatient methods in London, with special reference to the length of time patients were kept waiting in outpatient departments, including the casualty department. In discussing the latter the committee remarked that it was open throughout the twenty-four hours of the day and night, and 'is staffed by resident or junior medical officers'.

'At the casualty department ... patients are passing in and out in small numbers all day, including the times when the outpatient department is open. At the outpatient department large numbers come at particular times ...

At the casualty department every patient sees a casualty medical officer, who treats him once and either discharges him cured or tells him to come again on another day at whatever is the fixed time for attendance of old casualties; or if he needs the attention of a consultant, sends him to the outpatient department. The casualty officer may or may not be empowered to send a minor case away to a private doctor or to some other agency after one examination or treatment.'

The Committee stated that in some hospitals the casualty department was used as the sifting ground for the outpatient department. On the whole, waiting was no great problem in casualty departments, though it was often considerable in outpatient departments.

* * * *

In more recent times despite the fact that for many years there have been complaints and criticisms about casualty services there seems to have been remarkably little sustained agitation for radical measures to improve their position. A new phase began with the startling disclosures in the report of the British Medical Association Committee on Fractures (1935) which dramatically pointed to the need for changes in the methods of treating accident cases. Since then, the only officially-backed enquiry with a definite bearing on the subject has been the Inter-departmental Committee on the Rehabilitation of Persons Injured by Accidents, which issued its final report in 1939.

While to some extent war casualties and the Emergency Medical Service scheme influenced the treatment and provision of facilities for surgical emergencies, and for their rehabilitation, the growing realization in the early 1940s that after the war some kind of national scheme for hospitals was inevitable, seems to have reduced the pressure to make the problem of casualty services a priority for action at the highest national level. Looking back now it is not difficult to understand the comforting belief at the time that nationalization would somehow solve this extremely complex problem.

The sporadic references in official and semi-official reports and memoranda indicated, however, the anxiety that was felt about the lack of organization and specialist training for emergency work.

Thus in 1942 there were references to treatment of accidents in the report of the Tomlinson Committee* and later in the Ministry of Health's Memorandum on the Organization of Hospital and Rehabilitation Services,† and in the report of the Inter-departmental Committee on Medical Schools.‡ In 1943 the British Orthopædic Association published its first memorandum on accident services. The interest of the Nuffield Provincial Hospitals Trust in casualty services, which dates back to 1940, was continued and embodied in the reports of the hospital surveys,§ published in 1945, including such recommendations as the placing of casualty departments on a proper footing; the appointment of senior men to direct casualty services; the reorganization of such clinics as existed within accident services, and the need for casualty departments to have adjoining short-stay or 'observation' beds.

In this light it might be thought that the implementation in 1948 of the National Health Service Act would have given a special impetus to the rationalization of casualty services. This has not been the case, although the increasing use of machinery and appliances in the home, and the intensity of traffic on the roads have multiplied the chances of accident and injury and raised the demand for the treatment of 'true casualties'. Indeed, the road casualties can almost be said to be reaching epidemic proportions. The lack of serious thinking and action on the part of the executive authorities concerned is echoed by the fact that during the last few years the principal medical journals have carried relatively few articles or comments on casualty services, although when they have done so the writers stressed the severity and urgency of the problem. The need for action has been specially underlined by the recent Memorandum on Accident Services (1959) of the British Orthopædic Association, which concludes by recommending that the 'organization of accident services must be undertaken by the State as a quasi-military operation'.

* *Inter-Departmental Committee on the Rehabilitation and Resettlement of Disabled Persons*, Cmd. 6415.

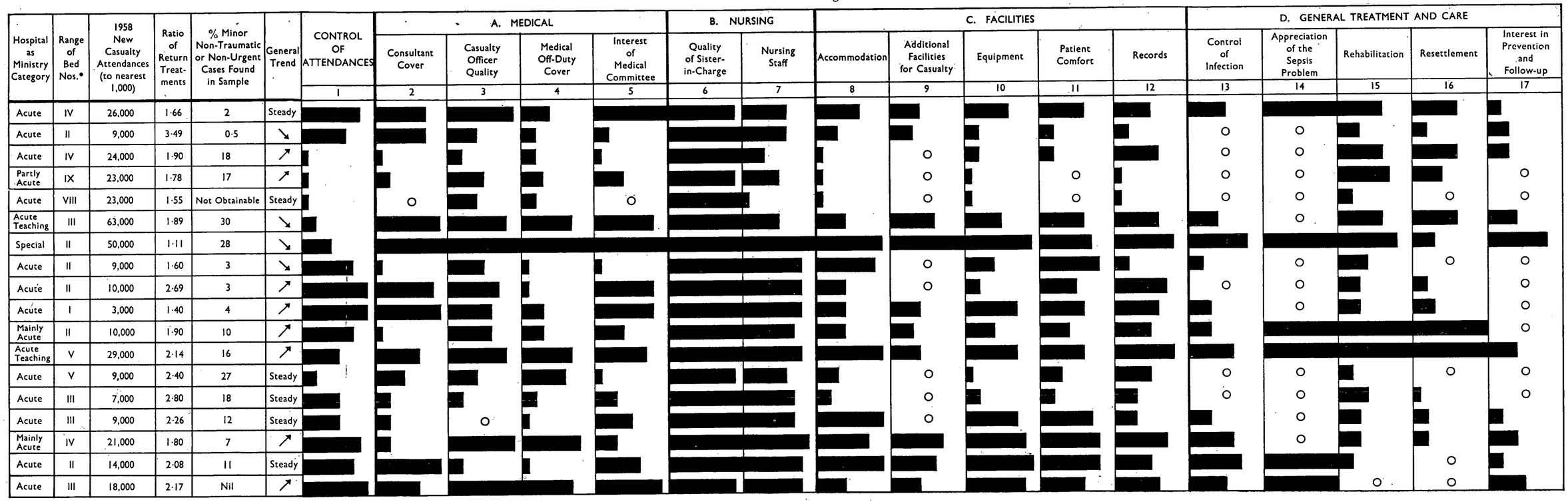
† Ministry of Health Memorandum No. 6, *The Organization of a Hospital Rehabilitation Department*, 1943.

‡ 1944.

§ *Hospital Surveys of England and Wales*, H.M.S.O., 1945.

PART IV: THE COLLATION AND PRESENTATION OF THE RESULTS OF THE STUDY

Plate 1 The Visual Rating Chart



* RANGE OF NUMBER OF BEDS, KEY

I	1–150	IV	401–500	VII	701–800
II	151–300	V	501–600	VIII	801–900
III	301–400	VI	601–700	IX	Over 900

The Collation and Presentation of the Results of the Study

(*A*) *THE VISUAL RATING CHART* (*PLATE 1*) *AND THE CLASSIFICATION AND RECORDING OF OBSERVATIONS*

In planning the survey of casualty services it was originally decided, in order to ensure continuity in the group visits, to draw up a number of main headings under which the answers to a series of questions would be sought. Later, for the purpose of easy reference and comparison, the results were developed into a rating chart. The criteria used are given below and Plate 1 summarizes the ratings, which are given in graphic form to avoid the need for sectional weightings and the temptation to add up the individual scores. In this connection it must be noted that although most sections have been allotted 10 points, this does not imply that each is to be regarded of equal importance. There is no question of assessing the relative efficiency of the various departments by adding up the readings horizontally.

The range of criteria can, of course, be extended to suit requirements, but the items taken are sufficiently comprehensive to cover an analysis of most of the requirements of good casualty care. Since the chart was developed, other important criteria which suggest themselves are 'Suitability for postgraduate training', 'Degree of integration into an area arrangement', and 'Degree of adherence to Royal College of Surgeons' regulations'.

* * * *

It must be emphasized that no claims are made for the chart other than that it was a useful guide and memorandum to the surveyors: but the comparisons it presents lead to all the significant questions which must be asked, and it is felt that in conception its production is an important step towards the ultimate development of a scheme of assessing services with more rigorous and definable criteria. If it were to be used, say, in the survey of a

region, its value would be even greater to give the picture at a glance.

* * * *

The first six columns, or 'Prologue', on the chart indicate the type of hospital and the size within a range of the number of beds; the approximate number of new attendances at the casualty department in 1958 and the ratio of return treatments; the percentage, found in the sample of case-notes examined by the team at the time of the visit, of patients attending the casualty department without a letter from a general practitioner and with a condition which was not due to trauma and not urgent; and the general trend of casualty attendances.

* * * *

The policy—or custom—of the hospital in dealing with this type of patient is shown in Column 1, the criteria used for which are as follows:

Criteria used for column 1:	*Control of attendances, or deterrent against minor non-traumatic or non-urgent cases presenting themselves at the department*
Rating	
10–9	Polite notice, backed up by informing G.P.s of function of the department and asking for their co-operation, as well as 'friendly persuasion' by the staff.
8–7	No attempt at a barrier on the part of the H.M.C. or consultant staff in a formal way, but polite dissuasion by the casualty officer and nursing staff.
6–5	Rigid barrier notice, without explanation, black-listing defaulting G.P.s, turning patients back without seeing a casualty officer.
4–3–2	Complete 'open-door' policy, encouraging patients to use casualty as an alternative general practitioner service, with a high ratio of return treatments.
1–0	Absolutely no attempt at regulation, although complaining about the department being overloaded with trivial cases.

* * * *

The block of Columns A, B, C, and D, indicate the team's assessment on the various aspects of medical staffing, nursing staffing, facilities provided in the department, and general standards of treatment and care.

* * * *

Columns 2–7 cover the establishment of doctors and nurses and a merit rate of the coverage given. If it was aimed to add a rating

for quality to the assessment, the method of marking would have to be improved to take into account personal qualities and teamwork; also such related items as labour turnover and the length of service which would affect routines or traditions. Thus the Sister-in-Charge is often the keystone upon which the effective functioning of the department depends. The level of asepsis may in practice depend on her, and also much of the handling of patients, yet her rating is given in only one column out of seventeen and would require special weighting. This problem of inter-relationship also appears in relation to facilities. In at least one hospital the team saw good arrangements with excellent instruments, but rarely used; on the other hand a good surgeon can take skin grafts with a safety razor blade.

Criteria used for column 2:	*Consultant Cover*
Rating	
10	Excellent nine-elevenths full-time casualty consultant in charge.
9–8	Consultant in more than nominal charge, takes active interest in the casualty department, knows the staff and is known by them all.
7–6–5–4–3	Consultant confines his appearance in casualty to one clinic (whether review or special, e.g. fracture, hand injuries) a week, yet otherwise takes no substantial part in the day-to-day running and organization.
2	Consultant pays only social visits to the department.
1	Consultant never visits the department.
0	A consultant is not even nominally in charge.

Criteria used for Column 3:	*Casualty Officer Quality*
Rating	
10	Full-time first-class, keen S.H.M.O. Senior Casualty Officer.
9	S.H.M.O. with right approach to casualty problems, but satisfied with dead-end office hours' appointment, tending to work in isolation to the rest of the hospital.
8–7	Keen S.H.O. using his time in casualty as a proper stepping stone to a surgical career.
6–5–4–3	S.H.M.O. or S.H.O. of lesser quality, using appointment as a stop-gap without any positive interest in casualty as such, *or* a conscientious house officer.
2	S.H.O. without real responsibility, allowed little scope for initiative and so showing little interest in the work.
1	Below reasonable standard of quality.
0	Staffing difficulties so acute that the department is being covered by a succession of locums—a 'hand-to-mouth' existence.

Criteria used for Column 4: *Medical Off-duty Cover*

Rating	
10	Department fully covered by casualty officers with consultant advice readily available.
9–8–7	Twenty-four hour cover by casualty officers above H.O. grade.
6–5–4–3	Department covered without difficulty by rota of junior house staff, or G.P.s.
2	As above, but with continuous difficulty.
1	Great difficulty experienced, causing bad relations among junior staff.
0	Totally inadequate arrangements for cover.

Criteria used for Column 5: *Interest of Medical Committee*

Rating	
10	Acceptance of casualty department as an important and integral part of the hospital.
9–8	S.H.M.O. on Medical Committee, or *active* consultant in charge.
7–6–5	Central position in hospital, but 'neutral' attitude generally from the rest of the hospital staff.
4–3–2	Relations and co-operation good only on the junior medical staff and nursing side.
1	Lip service only paid to the importance of casualty.
0	Very poor, isolated department in which no interest at all appears to have been taken.

Column 6 *Quality of the Sister-in-Charge*

Nearly every one was rated first-class, and none below a '9'. The consistent high quality of these Sisters is emphasized in the Visual Chart.

Criteria used for Column 7: *Nursing Staff*

Rating	
10–9	Well balanced.
8–7–6	Adequate.
5–4–3–2	Fair.
1	Understaffed.
0	Totally inadequate.

* * * *

Columns 8–11, dealing with accommodation and amenities, are probably on a different level of significance in terms of quality of patient care, yet their marking amounts to one-fifth of all items. However, the problem of weighting which should be given to the different aspects need not be an obstacle if each of them is taken separately.

Criteria used for Column 8, awarding nos. as indicated:

Accommodation
(including adequacy of theatre provision)

Up to 4 for	Good functional planning.
2	Good position in relation to the rest of the hospital and its service departments.
1	Above average standard of cleanliness, and easy to keep clean.
2	Spaciousness, including good ventilation and lighting (but no waste of space).
1	Cheerful paintwork and happy impression to the patients.

Criteria used for Column 9, awarding nos. as indicated:

Additional Facilities for Casualty

3 for	Adequate Resuscitation Room.
3	Recovery Ward, properly used.
4	Casualty observation beds properly allocated.

Criteria used for Column 10:

Equipment

Rating	
10	Good 'gadgetry' and equipment.
9–8–7	Above average equipment.
6–5–4–3	Only a fair standard.
2	Discards from other departments.
1	Poor and antiquated.
0	Totally inadequate.

Criteria used for Column 11, awarding nos. as indicated:

Patient Comfort

2 for	Friendly and cheerful atmosphere (as against dark and forbidding).
2	Attempt to cut down waiting times of patients.
2	Comfort in waiting space, stock of toys, etc., for children but *not* a canteen.
2	Privacy in consulting and treatment rooms.
2	Segregation of serious accident cases.

* * * *

Column 12 is most important. The items under 'records' might almost be looked at as special aids for the staff. Particular questions asked in the survey were whether a sample of records was ever looked at and whether there was any attempt at quality control. The case-load in relation to how the department was organized was also examined.

Criteria used for Column 12, awarding nos. as indicated:

Records

3 for Records easily available in the casualty department and system not too complicated to check on former patients.
1 Provision on cards for patient's occupation, doctor's name, etc.
3 Good standard of medical notes.
1 Arrangements for, or consciousness of the need for prevention of tetanus.
2 Clear directive or stamp for contact with the patient's doctor, and these properly used.

* * * *

Columns 13 to 17 make up the third broad aspect, the comprehensiveness of medical care. Since any one stage of medical care is only part of the whole, the other stages must also be looked at. Thus, the range and depth of medical care outside the hospital would clearly be an important factor in the needs of 'casual' attenders. Thus, good communications and co-operation between the hospital department and the general practitioners, and the means of communication and the teamwork available are other matters which have a bearing and must be explored. On the hospital side, as well as the interest of the medical committee, which is a question of status and administration, the dynamics of the relationship of casualty to other specialties must be looked at; for example, how, and at what point, is the neuro-surgeon called in for head injuries and in what circumstances, etc. In the same way Columns 15 and 16 on rehabilitation and resettlement are further steps along the development of services for patient care, and automatically lead to Column 17, the question of arrangements for prevention and follow-up.

Criteria used for Column 13, awarding nos. as indicated:

Control of Cross Infection

2 for Provision of separate dressing rooms.
2 Regular bacteriological monitoring of environment, instruments and staff.
1 Swabs taken regularly in casualty.
2 Above average standard of sterilizing equipment.
3 Non-touch technique in routine use.

Column 14 — *Appreciation of the Sepsis Problem*

The team considered there were only two possible ratings in this column—10 if the hospital admitted to a sepsis problem and was taking steps to combat cross infection; nil if the staff maintained they had no problem.

Criteria used for Column 15: — *Rehabilitation*

Rating	
10	First class physiotherapy, gymnasium and pool, sensible occupational therapy and daily living department.
9–8–7	Good physiotherapy, gymnasium and active O.T.
6–5–4	Good physiotherapy, but diversional O.T. only.
3–2	Physiotherapy, no O.T.
1	Poor physiotherapy.
0	No rehabilitation facilities at all.

Criteria used for Column 16: — *Resettlement*

Rating	
10–9–8	Resettlement Clinic and active rehabilitation programme.
7–6–5	Active Medical Interviewing Committee (M.I.C.).
4	M.I.C. rated 'poor' by the Ministry of Labour (not functioned during the last eighteen months).
3–2	No M.I.C. Disabled Resettlement officer (D.R.O.) contacted sometimes by the Almoner's department.
1	D.R.O's name not known.
0	Hospital staff do not know what the initials 'M.I.C.' or 'D.R.O.' stand for.

Criteria used for Column 17, awarding nos. as indicated: — *Interest in Prevention and Follow-up*

(To indicate liveliness of approach. It is appreciated there may be other authorities and departments concerned).

2 for	Any immunization programme.
2	Concern in the prevention of accidents and knowledge of local occupational hazards.
3	Follow-up for residual disability.
3	Awareness of modern trends in treatment.

* * * *

(*B*) *MEDICAL STAFFING* (*APPENDIX I*)

Appendix I consists of extracts from the reports by the surveying team on the medical staffing in a number of the principal hospitals surveyed.

Section (1) needs little comment or pointing and the several accounts illustrate the nominal nature of the consultant super-

vision of these departments. Is it really satisfactory that such comments should be possible ?

> *'On his own evidence (the consultant's) appearance in, and contact with, the department is confined to taking his afternoon cup of tea with the casualty sister in her office. It would seem therefore that the running of the department depends upon the calibre of the S.H.O., and its standards can change annually with each new appointment, since there is neither sufficient control or supervision.'*

> *'In terms of supervision, the consultant relies on his casualty officer approaching him and, judging from his surprise at some aspects of the department's activity at the time of the team's visit, it would appear his actual appearances in the department are few and far between.'*

> *'(The consultant) takes a special injuries clinic in casualty for one hourly session each week, and that appears to be the extent of his regular appearances in the department.'*

> *'The consultant nominally in charge of the casualty department seems to limit his appearances in the department to his weekly review clinic.'*

> *'(The consultant's) main responsibility seems to be to arrange the rota for the casualty department, but in fact this is done by the surgical registrar and it is said to be a difficult task. It was said that neither of these surgeons ever appear in the department itself for it is the orthopædic registrar who is usually called down when necessary.'*

> *'The consultants jointly in charge of the department are the general surgeon, whose responsibility seems only nominal, and the orthopædic surgeon, whose connection with the casualty department appears to be even more slender. The general surgeon himself described their duties as "only administrative, not clinical".'*

Because of the nominal nature of the responsibility taken, it seems that the whole effectiveness of the department might well be jeopardized, and the principle of consultant responsibility and

supervision, on which it would not be too sweeping to claim that the standards of the hospital service are based, is thus breached, certainly for this aspect of service, in the hospitals concerned.

The observations on those hospitals in Section (2) give a little more encouraging picture, and it was notable that in all these cases the service given to the public as a whole tended, in the opinion of the surveyors, to be of higher quality than in the hospitals referred to in Section (1). In only one case, and that was a special one, was surgical consultant cover of a very high order.

* * * *

In Section (3) references are made to a number of senior casualty officers on the S.H.M.O. grade, holding appointments in accordance with the Ministry of Health Circular of 7th September 1953, and the Section ends with a summary of relevant information taken from questionnaires circulated to Regional Hospital Boards on these appointments.

It cannot be said that the present arrangement for the appointment of particular senior casualty officers in the S.H.M.O. grade is a satisfactory one. In the departments visited the holders of most such posts were carrying out a good job, often in discouraging circumstances; yet it is open to question whether the fact that these appointments are of a temporary nature is good for the morale of the holders, who are invariably men of some seniority. In one or two cases the impression given by such senior casualty officers, especially if they had their F.R.C.S., was one of frustration. Quite often the earlier career of such a man is significant. He may be well qualified academically and is possibly of ex-senior registrar status. Major surgery probably attracts him most, but in any case, if he is in his late thirties or early forties, he is unlikely to find satisfaction in an insecure temporary job. It is difficult not to conclude that, although one effect of the policy set out in the above Circular was to create new and better paid posts for senior casualty officers, which would no doubt help to attract more senior men to fill them, it is merely a stop-gap measure to alleviate a condition which needs radical treatment, and for the cure of which some sort of stability within a career structure is necessary.

* * * *

The features of the junior staffing in Section (4) of Appendix I are the increasing shortages (and high turnover) of staff; the irritation caused by the establishment of a post which is invariably not filled; the marked difference in quality between the holders of such posts in teaching hospitals and in other hospitals; the large numbers of overseas graduates holding such posts. The inadequacy of the arrangements for the junior staffing of casualty departments probably illustrates more clearly than in any other hospital department the need for better organization of services. Indeed, on these grounds alone, it would seem sensible to explore the possibilities of area rationalization of casualty services to ensure reasonable cover, for if the supply of overseas graduates dries up—and it seems there might well be a contraction of supply soon—some such solution will in any case sooner or later be forced upon the authorities. To say that all hospitals visited were in the same difficulties would be to overstate the case, but it was noticeable that practically the only hospitals which had little difficulty in getting junior staff were teaching hospitals, or those non-teaching hospitals which had reasonably up-to-date accommodation and consultant cover. In particular, almost all the arrangements for night and week-end cover were patchy and inadequate. These duties are performed by house staff—often unwillingly, which does not make for effective cover.

Despite these junior staffing difficulties, very few hospitals were making use of special general practitioner sessions, although one of the busiest (and best-staffed) teaching hospitals, following the refusal by the Ministry of a request for an extra house surgeon appointment, was now using general practitioner clinical assistants in the department. The hospital advertised for, and appointed eventually, five general practitioners (out of 58 applicants) to take a session each week from 2.0 to 5.30 p.m. at 3–3½ guineas (a house surgeon would be paid at the rate of £500 p.a. (gross) for this appointment.) The five general practitioners selected included recent ex-registrars in casualty at a teaching hospital and it was claimed that the patients got more skilled and mature handling than by house surgeons; at the same time the general practitioners maintained a link with their previous career, and felt their hospital experience was not wasted.

(*C*) *NURSING STAFF*

It was notable that in every hospital the team agreed that the standard of the sister in charge of the casualty department was extremely high. In many cases it would not be an exaggeration to say that the sister was really the lynch-pin of the department. She provided a continuity in experience and skill which could not be expected from house officers on temporary appointments, and indeed her experience and skill was often drawn upon by wise house officers. In some places she was the only source of information available. This situation, of course, may be axiomatic in that the generally poor arrangements for medical staffing, for which casualty departments are notorious, makes for more responsibility on the part of the sister-in-charge, and so attracts good nursing quality.

Indeed, it led the team to speculate in one or two smaller hospitals whether it would not be best to designate the departments as first-aid rooms with a sorting function, and to recognize especially the responsibilities of a casualty sister-in-charge.

As far as the other nursing staff was concerned, in general the cover was considered to be fairly adequate, although in one or two cases, where there was an acute shortage of nurses in the hospital, this was reflected in the staffing of the casualty department. It was notable that on one or two occasions, when the team questioned the obvious lack of organization for calling reattending cases to avoid clashing with the peak period for new patients, the reason frequently given was that the department had no large permanent establishment, and the nursing staff was strengthened in the forenoon to deal with the rush. It is, of course, appreciated that because of the shortage of good nurses, the nursing force has to be deployed as effectively as possible and this may involve shared duties: yet it would seem that some profit would be gained by undertaking special studies of organization of nursing and ancillary staff, to see how such problems can be solved.

(*D*) *FACILITIES, ACCOMMODATION AND EQUIPMENT (APPENDIX II)*

Appendix II is composed of extracts from the private reports of the team on the accommodation, equipment, and techniques adopted for sepsis control (see also (*E*) 'Care and Treatment').

Altogether they make saddening reading. Although the reports were not written unsympathetically, the extracts reveal a sorry state of affairs. Even the recently built departments, with the possible exception of that portrayed in Appendix II, p. 117 (which has a relatively simple function in that it deals only with soft tissue injuries) have gravely disquieting features about their functional planning.

The special features to be noted in these accounts of facilities, excluding those for sepsis control, which is dealt with in (*E*) (i) below, are:

(1) The generally low standard of the accommodation and equipment (in particular it was noted how frequently the instruments were the 'throw-outs' from other departments). The psychological effect of this may well be one reason for the low standard of casualty services in general (although see 2, below).

(2) The lack of attention paid to functional requirements. It may be that this arises directly out of the poor quality of accommodation, etc., but it is notable that the one department which was the exception to this criticism (see Appendix II, p. 123) is in a building which, by any architectural standards, is poor, and out of date; yet some thought has been given to the functional lay-out of the department and there is an imposing battery of gadgets designed to meet the needs of the staff in relation to what they are called upon to do.

(3) The few departments which have properly designated short period observation beds, a facility which is really essential for a good casualty service (see also the proportion shown in Appendix I, p. 96), although without a close enquiry it is difficult to say how many of these beds are required for any particular population at risk. It is probably not absolutely necessary for such beds to be separated from the main wards, and the requirement could be covered by the designation of a small number of 'emergency diagnostic beds' in the general wards. Where conditions make it possible, such beds should be in a separate unit, relatively close to the casualty department.

(4) The scant regard for patient comfort. The following passage from one of the reports is not untypical:

'*Patients waiting to be registered sit on a row of twenty*

chairs. When given their cards (and, if referred by a G.P., his letter, opened, is attached to the card, although the Director has tried to enforce the rule that these should only be seen by the casualty officers), they wait to be called up in batches of six to sit and wait again in the corridor outside the examination room. Special pink folders are issued for emergency priorities. The Director's aim in moving patients from one waiting space to yet another is based on what he likes to call "public relations psychology" as he feels this prevents them from feeling isolated, and allows them to see a certain amount of activity going on. In the examination room they are seen first of all by one of the two house surgeons.

As an example of the complicated patient-traffic arrangements, an injection will be prescribed in the case of a septic finger, and the patient will sit for a further period in the special waiting room to the injection room. After treatment he must return through the main corridor, via the examination room, probably having to wait again to register for an appointment at the hand clinic, held every week-day afternoon, and an equally involved procedure, including two further series of waiting periods, will have to be followed before he is finally called into the unit for treatment.

Although notices directing the traffic are fairly clear, some of the instructions to patients (for example, outside the theatres) are unfortunately worded and must cause distress to the more squeamish patients.'

(5) At one of the poorest places visited so far as casualty arrangements were concerned, a new pathology department had been built, it was said, at a cost not far short of £100,000; its excellent equipment contrasted strangely with the bleak conditions under which patients wait and are treated in the casualty department. There may be good reason for this, but it is difficult not to be struck by such glaring contrasts.

(6) The disappointing planning of the newer departments seen. There is clearly something wrong at planning staff level if these are common examples, and the special attention of those responsible for approving plans should be drawn to their deficiencies; particularly so since the next few years are likely to see more capital being made available for hospital building and, it is hoped, for departments dealing with casualties. It is surely insufficient to

press for capital for new buildings without, at the same time, taking pains to ensure that such buildings are functionally satisfactory.

Many hospital authorities have or are to set up work study teams. It seems that these could with advantage be employed in studying the functional requirements of the department, and especially so if new accommodation is being planned. It is clearly impossible here to give other than the common considerations which should rule for the ideal department, but the following is a general observation on the departments seen:

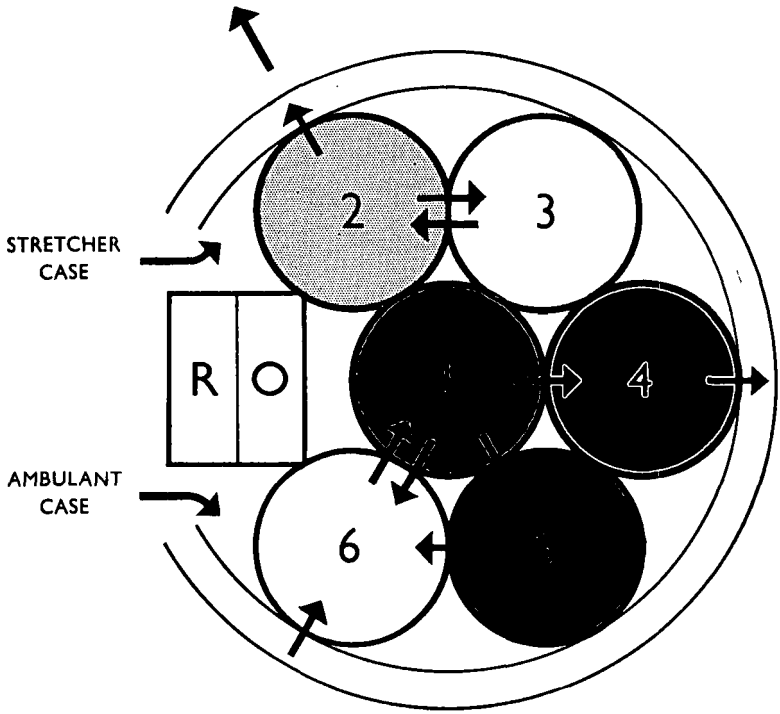
> '*The common faults we have noted that disturb efficiency, interfere with smooth patient flow, and cause congestion, occur when there is a long corridor arrangement with various departments opening from this corridor. The obvious suggestion for rearrangement is to cluster the departments. Stores and services can be placed outside the perimeter of this cluster. The consulting room should occupy a central posittion in relation to its departments. The shock room should be placed between the theatre and the ambulance entrance. It is a multi-purpose room because the treatment of shock, resuscitation and anæsthesia require the same personnel and equipment. This room should be big enough to accommodate several post-operative recovery cases and/or several severely injured patients together with the equipment (piped gases, piped suction, wall manometer, etc.) required for the treatment of these patients. The only additional equipment is an X-ray unit, preferably suspended from the ceiling.*
>
> *To avoid the steamy atmosphere which invariably accompanies steam sterilizing units, the adoption of pre-packed sterile supplies would be a definite advantage. There is a good deal to be said for not having any sterilizing equipment at all in the department, all supplies coming from a central supplies unit. The X-ray facilities should be such that the finished film can be delivered mechanically to the consulting room as soon as it is processed.*'

These considerations can be expressed diagrammatically in Plate 2, which, it is stressed, is not intended to be an architectural conception.

(*E*) *CARE AND TREATMENT*

(i) *Infection and Sepsis Control*

The faulty appreciation of the sepsis problem and the lack of arrangements to meet it was a common observation. It is perhaps



R — Reception—multipurpose; register stretcher and ambulant cases; keep records; type letters; make return appointments; Ambulance Officer kiosk.

O — Office—for surgeon; for sister.

Consulting room; twin desk; curtained cubicles; sound-proofing; multiple gadgets; *no* steriliser.

2 — Multipurpose for resuscitation; anaesthesia; recovery; semicubicled couches; piped gases; ceiling mounted X-ray; glass-fronted cupboards; additional exit to ward.

3 — Theatre suite *without* sterilising equipment—prepacked units for soft tissue and bone.

4 — Dressings and injection room; prepacked sterilised supplies—curtained cubicles; exit around X-ray to waiting room.

Automatic X-ray processing with finishing line opening into

6 — Multi-purpose waiting room *without* canteen.

Corridor with service rooms and providing exit from

significant that in a number of places it was claimed there was no problem at all, which possibly meant that infection of clean cases had not been recognized rather than that it was absent. Awareness of the possibility must precede the recognition of infection.

The following extracts, the first of which is from a report on a teaching hospital, indicate especially the complexity of the issue:

> *'A local anæsthetic dispenser was seen, ingeniously attached above a dressing and instrument trolley, with the needles permanently in position. This is suspect from the infection point of view, but it could be properly adapted.*
>
> *There are three theatres, two "clean" and one "dirty", beyond the X-ray suite. All the sluices are in the sterilizing rooms. The equipment is poor, generally the discards from other hospital departments. The theatre staff claim that they do not have a sepsis problem in casualty. It is open to doubt whether any department which admits to no sepsis comprehends the problem. The casualty theatre sister estimated that 75% of the cases were still sensitive to penicillin, the routine antibiotic used. Swabs were taken about every three years; they were due to start taking them again shortly. There had been no attempt at phage typing and nothing had been done about isolating carriers.*
>
> *There is no attempt to separate clean and septic cases except in the theatres. Dressings are done in the same rooms, clean and dirty cases being treated alternately. Non-touch technique is carried out by the consultant-in-charge himself, but he had some doubt whether this practice went right through the junior staff. The casualty sister was also critical of the junior medical staff in this respect.*
>
> *The disposal of dressings is very poorly arranged particularly in the casualty ward, where dirty dressings are carried through the ward in open buckets.'*

> *'An even more important aspect of the S.H.M.O. senior casualty officer's approach to casualty problems is that he is alive to the use of the service as a sepsis barrier to the rest of the hospital.*
>
> *For example, he had deliberately refrained from sending a patient infected with Staph. Phage 80 to the wards, treating him in casualty as an outpatient. However, when admission*

could no longer be avoided—and a decision on this had to be taken when the team were actually in the department—the consultant-in-charge let the patient go to a contaminated ward where, for the past three months, the inpatients there have been required to sign a form absolving the surgeons in charge, the management committee, and all those concerned in their treatment, from all responsibility for the consequences of their contracting such an infection.

In the team's view this written absolution is a deplorable method of solving such a problem, and shows an extraordinary outlook. In this instance, too, the attitude of the hospital compares very badly with that of a casualty officer, who is conscious of the sepsis risks.

'The "septic clinic" ... is only 10 ft. by 12 ft. Forty to fifty dressings are done at each morning session, in sets of five at a time, the patients crowded on to five chairs, the end one within a foot of the electric sterilizer. Dressings are removed altogether and the patients wait with their fingers dipped in peroxide soaks in gallipots (there is a bowl for septic toes). Opposite the row of chairs there is an antique operating table behind a portable screen. On the wall between there is a "sterile" multiple dressing stand on which a towel is folded over the sterilized instruments, this towel being changed three times during the morning session. The sister admitted she could not tell the sterile from the non-sterile instruments and could only hope to keep everything as clean as the circumstances allowed. Simple smoke tests showed that air flowed in from every possible crevice in the room ... the surgeon's desk is a wooden seat balanced on top of a radiator. At the end of the morning dressings' clinic "clean" minor operations are carried out behind the screen, with patients queuing up in the clinic, and causing a bottle-neck at times in the registration office next door.

Although there is an attempt to separate clean from dirty cases, from the point of view of sepsis this department has the worst physical set-up yet seen. The sister admitted that sepsis in casualty was on the increase and they were now taking swabs regularly. No one had attempted to introduce non-touch techniques in dressings, but such a term would be untranslatable in this setting.'

(ii) *Rehabilitation and Resettlement* (Appendix III)

Despite the general acceptance of the importance of rehabilitation and the need for close links between the hospital and resettlement services, the experience of the survey showed that, with two exceptions (one non-teaching and one teaching hospital) these matters were receiving insufficient attention in the casualty department.

Indeed, as will be seen from Appendix III, in many places there was not only an ignorance of whether rehab litation and resettlement services were available, but if they were, how they were to be used.* Yet a great deal of lip-service is being paid to the important role of rehabilitation, and no doubt hospital authorities can point to the existence on paper of good regional schemes. However, until comprehensive surveys are undertaken of how they are being used by particular departments such as casualty, the facts are not likely to be brought to light.

It was noticeable that (apart from the two exceptions mentioned above) services, where they existed, consisted merely of reference to a physiotherapy department for treatment several times a week, and the team found no liaison with local industry for alternative work while the patient was temporarily incapacitated.

(*F*) *THE NEED FOR IMPROVEMENT OF RECORDS*

(i) *General*

In any survey it is important to try to assess the size of the problem and how far the available arrangements are adequate to meet the demands. In this case it proved that relevant information was neither available centrally, nor easy to obtain locally. The first obstacle was the inadequacy, in the hospitals visited, of suitable records which could be analysed to set out the true burden and nature of casualties.

Most of the hospitals visited kept a day book for recording casualty attendances, but the records are not as a rule kept so that a meaningful analysis can be made reasonably quickly. The primary purpose of a hospital is, of course, the treatment of patients and the compilation of records must always be secondary to this. No

* Most of the visits were carried out before the issue of the booklet 'Rehabilitation of the Sick and Injured', prepared by the Central Health Services Council and issued by the Ministry of Health in July 1959.

hospital authority probing the casualty services' question is, however, likely to get far even in defining the range of problems posed, unless it designs methods for collecting, over a reasonable period, the relevant facts it needs on which to base its policies for now or the future. In addition, it must also build into such a system means which will indicate how far the arrangements which are assumed to be working are actually operating.

Very little published information exists to help in the assessment of the work-load of casualty departments, other than the numbers involved, usually distinguishing first attendances from re-attendances. This information is culled from a mass of statistics available in casualty departments as a result of recording day-to-day work. Information giving age, sex, diagnosis, occupation, source of referral and treatment, varying with the type of case and with the record keeper, exists partly for clinical and partly for legal reasons. The emphasis therefore is on the injury and its treatment. These records, like most medical records when looked at retrospectively, are too variable for evaluatory studies, certainly on a comparable basis. Yet it would not involve much further clerical work to complete records in a standard form throughout the country so that they could be comparable, but methods for the regular checking of the system itself would have to be instituted. The advantage of having a standard form would be that, if it were made comprehensive enough, the really relevant information, which gives an assessment of the range and depth of care given, could be extracted on a control sample basis.

(ii) *Published Information*

The information published by regional hospital boards in their annual reports varies somewhat from region to region, but so far as casualties are concerned does not go much beyond the total attendances at casualty departments and the number of new cases for each hospital group. Indeed, in at least one region, casualties are lumped together with outpatients. The boards collect these figures separately on Form S.H.3, from each hospital group for each month; nor did it seem in any of the places visited that a deep analysis of casualty work was being carried out, and the results applied. This was even the case in those regions where there were plans for improving casualty arrangements. Many annual reports about the medical care services, whether from the general prac-

titioner, hospital or public health authorities, tend to concentrate on accumulating total numbers and counting heads, thus failing to give a sufficiently deep analysis.

(iii) *A More Searching Analysis Required*

For a more meaningful picture one has to seek other dimensions by using methods which allow a study in depth of the case-load, perhaps based on a sample period. Plate 3 shows what can be found by a 'spot inspection' of cases as recorded in the day book.

A case-load study of a sample week out of each of the four quarters of the year can usually provide the information required. Because it is a sample it does mean that the lapse rate should be under 5% in each item recorded. If the items about which information is required are clear-cut, simple and readily definable, with set criteria, then a routine scheme for getting the facts about clinical care can usually be incorporated into the records system for one week. Moreover, the criteria can be worked out so that they can be put on a standard basis and applied to other hospitals in the area to enable comparisons to be made. The simple method which has been developed for this study (see (v) below) goes some way to show the range and depth of the character of the case-load, and could be a step towards developing the kind of inservice quality assessment which should be built into any system of medical care. From it can be obtained certain standard indices such as the ratio of reattendances to new cases, the proportion of 'non-traumatic and non-urgent cases' and of cases referred by general practitioners, the severity of the injuries treated and the range of treatment given.

* * * *

There is room as well for trying even more intensive methods of assessment. Thus, another method tried in this study was to use the standard injury as a marker case and to follow it through its whole course of treatment from time of injury to return to work, recording the length of each phase, together with the control, the range and the depth of the injury. At one stage this was looked on as a hopeful line, but because in the pilot runs it was left to local supervision, and control was therefore remote, it did not prove productive. The key phase of the date of the injured man's return to work was often conditioned by such intangibles as the character

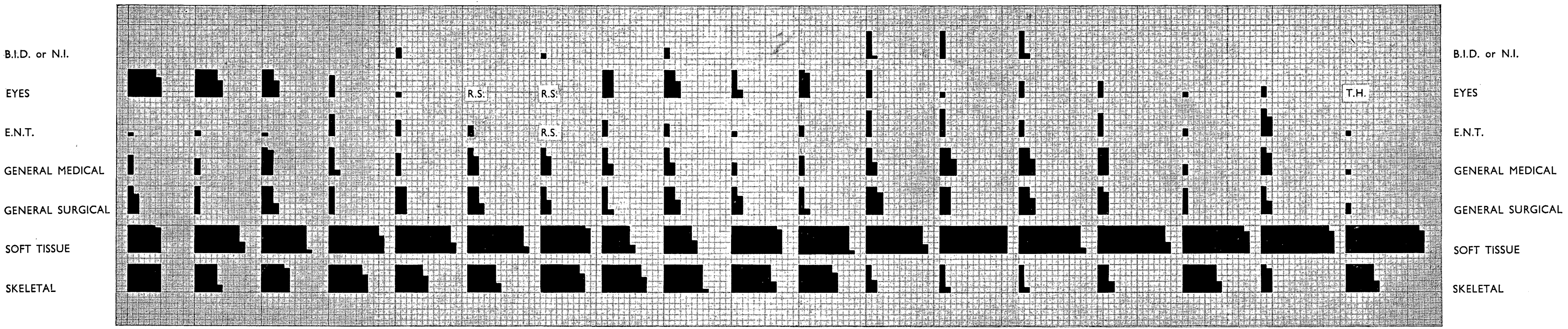
of the patient himself, his general practitioner or the casualty officer, as well as by local custom, the level of employment, the kind of job and payment for sickness absence. It must, however, be recalled that the British Medical Association in 1935, for their Commission on the Treatment of Injured Persons, arranged for the processing of a medical card, etc., of standard injury, and this method could be developed with profit. Such a system is now in operation in groups of American hospitals, in conditions which are less easily defined and standardized than those in many of the casualty departments in this country.

(iv) *The 'Spot Inspection' (Plate 3)*

Samples were taken of 200 cases running consecutively in the day books of all the departments visited, for the same period of the year. The cases were grouped as follows, and the results are shown graphically in Plate 3.

Skeletal:	Injuries—proved to involve the bony skeleton.
	Injuries—proved to involve the joints and joint structures.
	Diseases of bones.
	Diseases of joints.
Soft Tissue:	Injuries to tissues other than skeletal, i.e. lacerations, abrasions, burns, severed tendons, severed nerves, etc.
	Skin tumours, i.e. cysts, etc., removed in casualty.
General Surgical:	Cases referred to surgical wards or those requiring surgical diagnosis other than injury.
General Medical:	Cases referred to medical wards or those requiring medical diagnosis—gynæcological, etc.
E.N.T.:	Diseases or injuries of the ear, nose and throat, i.e. foreign bodies, tonsillitis, earache, etc.
Eyes:	Diseases or injuries of the eye, foreign bodies and eye infections.

Plate 3 Patterns of Case-Loads Coming to Departments Seen in the Survey



B.I.D. Brought in dead—no diagnosis
N.I. Diagnosis not identifiable
T.H. Transferred to another hospital (Eye cases)
R.S. Recorded separately (Eyes and E.N.T.)

Comments (if any)

NUFFIELD PROVINCIAL HOSPITALS TRUST
SURVEY OF CASUALTY SERVICES

Hospital_____ Reference No._____

Details of Patient

Name_____ Age_____ Sex_____

Address (Town or village only)

Specific Occupation_____

_____

Details of Injury

Date of Injury_____ Hour_____

Date first seen in the Dept._____ Hour_____

Place of Accident: Work ☐ Home (indoors) ☐ Road/Traffic Accident ☐ Other (specify) ☐

Fold here

Source

Referred by G.P. with note ☐ Ambulance case ☐ Casual ☐

Other referral (Specify) ☐

Diagnosis

Full diagnosis, including stage and severity:

Treatment

Specify:

THE SAMPLE CARD

Investigations: X-ray ☐ Others (specify) ☐

Disposal

Discharged immediately after treatment/examn. ☐

Referred to G.P. with letter ☐

Referred to G.P. without letter ☐

Reattendances (No.) ☐ Admission ☐ Referred to Outpatients ☐

Did not reattend ☐ Other (specify) ☐

Date last seen ☐

The block graphs in Plate 3 show how the work of the department is divided up: columns 1 and 2 are probably wholly accident work, and a close analysis of these should be a guide to what facilities are required in the departments for dealing with the basic types of injuries which constitute the bulk of the cases. The other columns, though they appear to be a small proportion and not 'accident work', need further close study for they might be very time-consuming for the department—for example, a case of acute abdomen (general surgical) may spend more than one hour in the treatment room, probably needing another opinion to be called into casualty. These particular kinds of case raise important questions in the organization of the work of casualty departments, but it is not normally evident how frequently they occur.

(v) *An Outline of a Simple Method for Studying the Case-load in Casualty in a Sample Week*

The following is an account of a method designed to give a fuller analysis of 'new' casualty attenders. From this system the picture of casualty in relation to the hospital and its place in the scheme of medical care can be built up. It was developed from a pilot run at a casualty department, following the visit of the surveying team. It was then tested by application to a number of other departments and was eventually applied to eight hospitals which were a fairly representative sub-sample of the stratified sample.

A simple card *pro forma* was designed to record the basic elements about the casualty case by putting X's in boxes (see sample card, page 53) to cover age, sex and occupation of the patient, time and place of accident, the *source* of the case, the *diagnosis*, *treatment* and *disposal*.

This card was attached to the casualty record card of each new attender in the sample week, and filled in by the clerk and the casualty officer. Cards were returned in three batches at about weekly intervals as the new patients in the sample week completed their treatment and attendances.

For the diagnostic analysis an abridged version of 40 categories was made from the 100 categories of the Birmingham Casualty Index,* because an analysis of 5,981 consecutive new attendances

* A casualty diagnostic index compiled by the United Birmingham Hospitals but hitherto unpublished.

in 1959 at the Birmingham General Hospital gave the following distribution:

100 or more patients fell in one of 15 large groups;
50–99 patients fell in one of a further 15 groups;
20–49 patients fell in one of the 30 smaller groups;
Under 20 patients fell in one of the 38 smallest groups.

Abridged Diagnostic List for Casualty Cases

Following broadly the outline of the Birmingham scheme, a shorter classification was formulated, reducing the number of groups to 40.

The Abridged Diagnostic List

01 Fractures Skull and Face (excluding Fracture Nose only) and/or concussion.
02 Fracture Spine (S) or Multiple (M).
03 Fracture Ribs (R) or Clavicle (C).
04 Fractures—Colles, Carpus, Metacarpals or Phalanges Hand.
05 Fractures—Other, upper limb.
06 Fractures—Potts, Tarsus, Metatarsus or Toes.
07 Fractures—Other lower limb or Pelvis.
08 Dislocations (any site)
09 Ligamentous Injury (Sprain/Strain) upper limb.
10 Ligamentous Injury (Sprain/Strain) lower limb.
11 'Rheumatism'.
12 Laceration/Open Wound/Penetrating Injury requiring cleaning and dressing only.
13 Laceration, etc., requiring up to 2 sutures *or* A.T.S. *or* systemic chemotherapy.
14 Laceration, etc., requiring more formal toilet, repair or exploration (i.e. generally speaking a good local or general anæsthetic needed).
15 Contusion or Bruise—skull, face or trunk.
16 Contusion or Bruise—limbs.
17 'Infection Areolar Tissue' (as Army term—I.A.T.) Paronychia or ingrowing toenail.
18 I.A.T.—Other infections—limbs.
19 I.A.T.—Other infections—head, neck, trunk (breast abscesses now few).

20 Burn or Scald—under 4% body surface.
21 Burn or Scald—over 4% body surface.
22 Bite or Sting (but dog-bite in 12–14).
23 Other Skin Disease.
24 Sebaceous Cysts.
25 All other observable 'Tumours' (Hæmatomas into 15 or 16).
26 E.N.T.—F.B. or suspect F.B., Nose or Ear.
27 E.N.T.—Epistaxis.
28 E.N.T.—all other (including Fracture Nose).
29 Eye—F.B. or suspect F.B. or abrasion from F.B.
30 Eye—all other.
31 Swallowed or inhaled F.B.
32 Poisoning (suicidal or otherwise), Drunk.
33 Epilepsy/C.N.S. Vascular Lesions.
34 Acute Respiratory Disease.
35 Acute Intra Abdominal Disease (including ulcers, appendices, etc.).
36 ♀ Obstetric/Gynæcological Emergency.
♂ Acute Retention.
37 Other Medical or Surgical.
38 Dental.
39 Unclassified (to be used for V.D., Infectious Diseases, Psychiatry).
40 Symptoms N.A.D.

It would appear almost impossible to create such a list along strictly 'systematic' lines (for example, by anatomical site of injury, or by its severity). Such lists would be too unwieldy in number of groups to be workable, and the groups have to be delimited somewhat arbitrarily. Also the Birmingham Index does not include any groups for 'Eyes', which would normally provide a fair proportion of casualty attendances, at least at peripheral hospitals. As will be seen, the abridged list shows a mixture of 'systems' of grouping, e.g.

(1) Fractures are grouped anatomically. 'Concussion' is included with fractures of skull and face; it is largely a matter of chance whether a head injury results in fracture or concussion, alone or in combination.
(2) Dislocations, being few in number, are grouped together; in practice they are almost all of upper limb or shoulder.

(3) Lacerations and open wounds are grouped in three degrees of severity, not on anatomical site.

(4) Arthritis, rheumatism, backache, etc. (essentially orthopædic cases) are grouped together as 'non-traumatic locomotor disease'.

(5) Medical and surgical entities have been combined and regrouped on similarity of presentation. Thus, epilepsy and C.N.S. vascular accidents form one group, and all 'acute abdomen' another.

This abridged list is open to the theoretical criticism as being non-systematic and arbitrary; its virtues, however, are that it sub-divides 'casualties' effectively, is comprehensive, easy to work, makes sense clinically and it is useful operationally.

Extraction and Tabulation

Using this abridged list, the next step is to construct a key or master table. One entry is made on this from each card and this single entry suffices to show:

(1) The type of injury (as by abridged list).

(2) The age group of the patient:

Under 5 pre-school
5 — 15 school children
16 — 24 adolescents, apprentices, students
25 — 44 younger adults
45 — 64 older adults
65 + elderly and retired

(3) The sex of the patient:

Male = Blue
Female = Red

(4) The source of referral:

Casual (of own, or parents' volition)
By G.P. letter
Other, usually Works Nurse, School or Police Cases

(5) The time delay between 'injury' sustained, according to symbol around each number:

□ At Home (indoors)
○ At School or Work (if in person aged 16 or over presumed at work)

◊ Result of Road/Traffic Accident
All others, the majority being sporting or gardening injuries.

(In multiple lesions other than fractures, only the most severe was recorded, but in practice this lesion was dominant.)

Having thus constructed the Key Sheet, which is in itself informative, it is a straightforward task to construct tables along the lines of Tables I to VIII. Such tables can be constructed to show a great deal of information. Tables IX and X were constructed by hand sorting.

Limitations of Scheme

The system is essentially a simple one, and it is estimated that some 500–1,000 entries could be made on the Key Sheet without it becoming over-detailed. To make the sheet bigger would, of course, make later reading of it more difficult. It is thought that it would not be possible to put into the Key Sheet any more subdivisions—for instance with regard to disposal—without making it too cumbersome. Of course, one could adapt one form of present subdivision, for example different coloured inks for the sexes, and instead use different coloured inks for form of disposal, provided one were to forego considering the sexes separately.

The principal objection is that once a card is tabulated on the Key Sheet, it is impossible to get out other details without hand-sorting back through all the cards. Such objection could, of course, be overcome by the use of some form of punched card system, but the numbers of cases, i.e. only a few hundreds, required to give an overall and meaningful picture of the case-load can be easily sorted by hand and do not require the unnecessary sophistication of punch cards or other statistical refinements.

Time Involved

The initial planning took about twelve hours to try out and reach the abridged diagnostic list and get a reasonable layout for the Key Sheet. The operational time for each hospital was concerned with (*a*) extracting and entering up the few hundred cards on the Key Sheet, and (*b*) splitting and transcribing the results into sub-tables.

It is estimated that about 50 cards per hour could be entered up

on a Key Sheet and that, with a total of about 200 entries, about five sub-tables could be constructed in a session of three to four hours.

The amount of time required for interpretation of the key table would vary, depending on how closely one wished to study the entries and refer back to the original data. The total time required to complete the present analysis of one hospital would be fifteen hours—once a *year*.

TABLE I

Distribution of Number of Cases by Abridged Diagnostic Group in Eight Hospitals and Their Relation to Clinical Needs

Diagnostic Group		1	2	3	4	5	6	7	8
1. Fractures, skull and face	H	2	2	3	9	3	3	3	3
2. ,, spine and multiple	H	6	0	3	0	1	1	0	1
3. ,, ribs and clavicle	H	0	3	5	2	6	1	2	1
4. ,, wrist or hand	H	12	9	19	10	13	4	3	9
5. ,, other upper limb	H	3	9	6	10	4	2	2	2
6. ,, ankle and foot	H	4	9	7	2	5	1	1	1
7. ,, other lower limb	H	3	0	4	3	2	3	0	4
8. Dislocation	H	2	1	2	0	3	1	0	1
9. Sprain, upper limb	H	1	2	0	1	9	1	7	1
10. ,, lower limb	H	5	8	9	9	14	5	10	1
11. Rheumatism	P	2	4	5	3	5	3	5	7
12. Wound, dressing only	N	8	20	2	21	16	11	21	16
13. ,, 2 sutures or A.T.S.	P	40	17	26	26	53	21	28	33
14. ,, more	H	7	6	10	4	18	8	7	8
15. Bruise, Skull or Trunk	P	2	4	13	6	17	12	13	12
16. ,, limbs	P	14	14	31	24	39	16	23	40
17. Infected Toe	P	1	1	7	1	20	4	2	1
18. ,, limbs	P	2	5	5	3	21	7	11	5
19. ,, trunk or breast	P	1	4	6	1	17	2	8	3
20. Burn, under 4%	N–P	9	2	5	3	7	5	4	2
21. Burn over 4%	H	0	1	0	0	0	0	0	0
22. Bite or sting	N–P	0	9	10	3	12	5	0	0
23. Other skin	P	1	0	5	0	14	8	8	0
24. Cyst	P	1	0	2	1	4	0	1	1
25. Other lumps	P	0	1	0	0	2	0	2	3
26. E.N.T., F.B.	H	0	1	0	2	3	0	2	1
27. ,, epistaxis	H	2	1	1	0	1	0	3	0
28. ,, other	P	1	3	2	2	6	1	8	1
29. Eye, F.B.	N–P	21	8	15	28	11	3	2	14
30. ,, Other	P–H	8	0	3	4	5	0	4	8
31. F.B., Gut or Lung	H	3	0	2	1	4	0	2	1
32. Poisoning	H	1	0	2	2	3	3	5	0
33. Epilepsy or stroke	H	2	2	1	3	6	1	2	1
34. Acute lung	P	0	0	0	0	3	0	5	3
35. Acute abdomen	H	0	3	10	6	7	4	7	8
36. Obs./Gynæ. Emerg.	H	0	0	0	1	3	0	5	4
37. Other	H	0	0	4	9	4	2	10	6
38. Dental	P	1	0	2	3	19	0	4	0
39. Unclassified	P	2	0	1	0	7	1	7	2
40. Symptoms N.A.D.	P	0	3	2	1	6	4	4	1
Total Cases		167	152	230	204	393	140	234	205

H = Hospital facilities or clinical need required.
P–H = General Practitioner and/or hospital skills required.
P = General Practice facilities or clinical need required.
N–P = Nurse S.R.N. and/or G.P.
N = Nurse S.R.N. alone necessary.

TABLE I

is a summary prepared from the Key Sheet showing the *numbers* of cases in each of the 40 diagnostic groups at each of the eight hospitals, together with the level of clinical skill required to cope with the injury. This classification succeeds in leaving only a minimal number of cases as 'miscellaneous', i.e. groups 37 and 39; indeed the largest percentage was in hospital 7, where it rose to 7%. This was due not to difficulty in interpreting the data but to a relatively higher incidence of 'casuals', i.e. non-traumatic and not urgent.

TABLE II

Percentage Distribution of Casualty Cases among 24 Main Diagnostic Groups in Eight Hospitals and Related to 'Level of Skill' Needed

Diagnostic main group		*Skill need*	*Hospitals (% to nearest 1%)*							
Code No(s).	*Injury*		1	2	3	4	5	6	7	8
A. 01 and 02	Fracture, skull Face, spine, multiple		5	1	3	4	1	3	1	2
B. 03	Fracture, ribs or clavicle		—	2	2	1	2	1	1	—
C. 04 and 06	Fracture Wrist / Ankle and distal	H	10	12	11	6	5	4	2	5
D. 05 and 07	Fracture Arm above wrist Leg above ankle		4	6	4	6	2	1	2	3
E. 08, 09, 10	Joint injuries	H & P	5	7	5	5	7	5	7	1
F. 15 & 16	Bruises. No fracture	P	10	12	19	15	14	20	15	25
G. 11	'Rheumatism'	P	1	3	2	1	1	2	2	3
H. 12	Wound Dressing only	N	5	13	1	10	4	8	9	8
J. 13	Wound 2 Sutures/ATS/Pen.	P	24	11	11	13	13	15	12	16
K. 14 and 21	Wound, More Severe burn	H	4	5	4	2	5	6	3	4
L. 17, 18, 19	Sepsis	P	2	7	8	2	15	9	9	4
M. 20	Minor burn	N–P	5	1	2	1	2	4	2	1
N. 22	Bite or sting	N–P	—	6	4	1	3	4	—	—
O. 23 and 24	Skin disease and cysts	P	1	—	3	—	5	6	4	—
P. 26, 27, 28	E.N.T.	H–P	2	3	1	2	3	1	6	1
Q. 29	Eye, F.B.	H–P	13	5	7	14	3	2	1	7
R. 30	Eye, other	N–P	5	—	1	2	1	—	2	4
S. 31 and 32	F.B., Gut/Lung poisoning	H	2	—	2	1	2	2	3	—
T. 33	Epilepsy/Stroke	H	1	1	—	1	1	1	1	—
V. 35	Acute abdomen	H	—	2	4	3	2	3	3	4
W. 36	Obst. and Gynæ. or male retention	H	—	—	—	—	1	—	2	2
X. 38	Dental	P	1	—	1	1	5	—	2	—
Y. 40	Symptoms N.A.D.	P	—	2	1	—	2	3	2	—
Z. 25, 34, 37, 39	Other	P	1	1	2	4	4	2	10	5
	Total patients		167	152	230	204	393	140	234	205

TABLE II

shows the number of cases as percentages to the nearest unit to facilitate comparison of case-loads between hospitals. The 40

diagnostic groups have been further compressed into 24 main groups which are meaningful in terms of severity of lesion or its clinical implications, specialty and clinical skill required. Although there is an apparent overall similarity, there is a tendency for the first four hospitals to have more serious trauma while the latter four have more vaguely defined and less serious lesions. Where the identity of the hospital is known, many of the deviant figures can be explained, e.g. the high percentages of 'F.B. in Eye' in hospitals 1 and 4 is largely due to the proximity of local engineering factories, often with an industrial nurse. The high sepsis figure in the teaching hospital is less easy to understand without considering the customs in the surrounding area and other local factors.

TABLE III

Percentage Distribution of Casualty Case-load in Eight Hospitals by Four Levels of Clinical Care Needed

Hospital	*Hospital care*	*G.P. care*	*G.P. nurse*	*Nurse*
1	32	40	18	5
2	37	37	12	14
3	36	48	13	1
4	31	39	17	10
5	26	60	8	4
6	25	58	9	8
7	27	61	3	9
8	22	58	8	8
Case average (per cent)	29	52	10	7
Total cases: (numbers)*	509	891	178	115

* A further 32 cases were in diagnostic group 30; 'Eyes other than F.B.' requiring G.P. and/or hospital care.

is constructed by grouping the cases according to their needs in terms of medical skill required, as shown from the allocation to the 40 diagnostic groups on Table I. The criteria for this allocation are the same as Crombie's* study in Birmingham General Hospital, in relation to his own general practice.

* Crombie, D. L., 1959, *Journal of the College of General Practitioners*, 2, 346.

The *first* column shows that those cases requiring hospital casualty care, which could not have been treated by a G.P. or a nurse, averaged only 30%. It is interesting that the highest percentages are for the semi-rural towns and the lowest in the hospitals serving London, and a heavily industrialized town. The *second* column not unexpectedly shows the inverse trend with an average of *half* of all cases requiring only G.P. care. The *fourth* column averages 7% requiring only nursing care of S.R.N. level, and the intermediate *third* column of G.P. and/or Nurse, depending on their teamwork and supervision, average 10%. Thus, 70% of all cases could have been investigated and treated outside the hospital by the general practitioner. It will be observed that all dislocations, sprains and strains of joints were allocated as requiring hospital care, and so assumed that direct access for X-ray by the G.P. was not available, or not the custom. This indicates that the level of G.P. care assumed was far from rigorous.

TABLE IV

Percentage Distribution by Sex and Age Group of New Casualty Patients at Eight Hospitals during Sample Period of One Week

	Age groups—males							*Age groups—females*							
Hospitals	−5	5−	16−	25−	45−	65+	*All males*	−5	5−	16−	25−	45−	65+	*All females*	*Total Nos.*
1	4	13	10	19	12	2	60	2	11	7	7	10	3	40	167
2	4	14	20	23	12	3	76	2	8	5	4	5	1	24	152
3	8	12	13	15	10	2	60	5	11	6	7	7	4	40	230
4	2	14	16	24	15	2	73	2	7	5	5	4	2	27	204
5*	4	14	13	18	8	3	62	4	9	5	11	7	3	38	393
6	7	14	13	11	12	3	61	2	9	5	11	8	4	39	140
7	6	12	13	15	11	5	64	3	8	7	10	6	3	38	234
8	3	8	17	25	12	2	67	3	7	5	8	7	3	33	205

* Owing to the large numbers involved here the sample was limited to four representative days.

TABLE IV

The striking aspect of this table is its uniformity despite the wide variation in the types of hospital and the communities they serve. For all areas the age-groups show a similar pattern of incidence. In comparing age-groups, however, some caution must be observed because the age groupings used are arbitrary. It is

apparent that the heaviest demand for casualty services comes from school children and young adults, that is those between 5 and 25. In fact males of these age-groups represent between 25% and 34% of the attendances, and females between 12% and 18%. Taken together, school children and young men and women up to 25 account for between 37% and 47% of all casualty cases. In other words, this young age span of only 20 years contributes an average of 42% to the casualty case-load.

TABLE V

Percentage Distribution by Source of Attendance of New Casualty Patients at Eight Hospitals

Hospital	1	2	3	4	5	6	7	8
Walked in on own initiative .	75	65	65	54	67	70	72	53
G.P. letter	9	25	26	26	21	15	14	33
*Other referral . . .	15	10	9	20	12	15	13	14

* 'Other referral' is a miscellaneous group of Ambulance Case, 999, Industrial Medical Officer, Nurse or First-Aider.

TABLE V

It is surprising in view of the drama attached to casualty services, to find in this table that in fact between half and three-quarters of these patients walked in of their own volition. The average ratio of patients referred from their general practitioners with a note was only one-fifth, but there is a wide variation here in the proportion of patients coming from a general practitioner with a letter. The range is from 9% to 33%. The question arises of flexibility in casualty policy in different areas. In Hospital 1, for example, definite criteria were established for accepting a casualty patient, and this may account for the low proportion of cases referred by general practitioners.

TABLE VI

Percentage Distribution by Place of Injury or Illness of New Casualty Patients at Eight Hospitals

Hospital	1	2	3	4	5	6	7	8
Home	32	19	27	24	35	27	38	30
School or work	34	38	23	38	22	27	23	29
Road traffic	11	12	10	14	7	10	7	9
Other	23	31	40	24	36	36	32	32

TABLE VI

The picture revealed in this table is similar to that of the national pattern of fatal accidents, with home, school or work accounting for over half the injuries and illnesses, and road accidents involving a vehicle taking a steady smaller toll. 'Other' places of injury include gardens, sports fields and in the street where no vehicle was involved. The high proportion of those coming to the casualty department straight from home leads to a further speculation on the role of the general practitioner, taking account particularly of the analysis in Table VII.

TABLE VII

Percentage of Home Casualties with G.P. Letter of Referral to each of Eight Hospitals

Hospital	1	2	3	4	5	6	7	8
No. of home cases	53	29	61	49	138	38	88	62
No. with G.P. letters	7	12	29	21	47	10	18	28
Percentage	12%	41%	47%	42%	34%	26%	20%	45%

TABLE VII

It is interesting to note from this table that in every case the majority of patients coming straight from home (and not by ambulance but of their own volition) did not see their general practitioner first. The necessity for analysis by diagnosis is indicated, as well as the identity of the local medical customs to give some idea of the extent to which casualty services in each area are functioning as substitutes for the general practitioner services.

TABLE VIII

Time-Lapse Between Injury and Attendance at Hospital: Percentage Distribution of Patients

Hospital	1	2	3	4	5	6	7	8
— 2 hours	57	55	35	45	31	47	33	31
2–24 hours	30	17	18	35	26	15	20	13
24 + hours	10	28	23	20	31	19	33	29
Not known	3	0	24	0	12	19	14	27

TABLE VIII

With the exceptions of Hospitals 1 and 2, one, surprisingly in an industrial and the other in a rural town, most patients came to the casualty departments at least two hours after the occurrences of injury or illness. At Hospitals 5 and 7, one-third turned up twenty-four hours after the event, although these are both in Metropolitan London. The distribution between two hours and twenty-four after the time of injury was fairly uniform. Certainly it is only the minority of cases that arrive at hospital within a few hours after injury.

TABLE IX

Percentage of Patients by Number of Attendances at Casualty Department at Five Hospitals

Hospitals	1	2	4	6	7
Number of attendances					
1 only	65	79	55	50	62
1 reattendance	23	14	25	19	15
2 or 3 reattendances	8	7	13	18	14
4, 5, 6 ,,	3	—	5	8	6
7 + ,,	1	—	2	5	3

TABLE IX

Between 50% and 80% of all casualty patients attended once at hospital, and between 70% and 93% were discharged after one attendance or less. There seem to be less reattendances in the provinces than in London, where up to 13% attended casualty four or more times. The data from the other three hospitals were inadequate for analysis.

TABLE X

Distribution by Percentage of Disposal of Patients from Casualty Department

Hospital	1	2	4	6	7
Hospital admission . . .	8	5	12	4	8
Hospital other O.P. Clinic/other hospital . . .	18	27	17	10	11
To G.P. with letter . . .	65	22	11	7	10
To G.P. without letter . . .	3	13	6	3	2
Defaulted reattend . . .	4	2	7	7	17
No formal arrangement . . .	3	31	48	68	53

TABLE X

As in any study of medical care of a single department, it is interesting to examine whither the patient goes, as well as from whence he comes. Between 4% and 12% were admitted to a hospital bed, while a further 10% to 27% were transferred to another hospital or a clinic. The greatest variation, however, was in those discharged back to their general practitioner; 68% in an industrial town and almost always with a letter, while in London it was around 10% and, moreover, here over half had *no* formal arrangement to report anywhere, although they probably had no clinical need to do so.

PART V: THE NATURE OF THE PROBLEM PRESENTED BY CASUAL PATIENTS

The Nature of the Problem Presented by Casual Patients

1. *A LONG HISTORY OF NEGLECT*

This study was commissioned as the result of a conference held two years ago, but it was not the first time the trustees had interested themselves in defects in casualty organization. In 1941, for example, the Trust's Medical Advisory Council drew attention in a special report to the poor quality of work of casualty departments.

Yet despite the establishment of the National Health Service and its opportunities for the rationalization and improvement of services designed to meet particular human needs, the casualty department still remains last on the list for reform.

It is hardly surprising therefore that quotations, from the special report mentioned above and from the Report of the Interdepartmental Committee on the Rehabilitation of Persons Injured by Accidents (1939), are echoed in the notes of the criticisms made at Christ Church in 1957 and could well have formed part of the observations of this survey.

> '*The Council* (*i.e.* the Medical Advisory Council of the Trust) *felt that the practice then existing, whereby the treatment of patients in the casualty departments of hospitals was left largely in the hands of junior and recently qualified medical officers, was unsatisfactory. They commented that "on the whole, treatment of minor injuries leaves much to be desired. A wound of the finger may throw a man out of work for two or three months, whereas with efficient treatment from the start, healing may take place in a few days."* '*

and,

> '*The most striking feature is the situation disclosed as regards the delay in many cases, even of serious injury, in commencing treatment .... Whilst such information cannot of course be put*

* Nuffield Provincial Hospitals Trust, First Report, 1939–1948.

*into any statistical form, it points to a serious defect in the arrangements under which injuries are at present treated in a large number of our hospitals.**

2. *THE CHAIN REACTION FROM THE LOW STATUS OF CASUALTY WORK*

It is clear from the study that practically all the weaknesses of casualty departments as they are recognized today are related. The word 'casualty' presupposes a need for treatment and comfort and suggests an element of shock. What is the effect of the first impression made on patients if the physical accommodation and arrangements for their reception are bad? It can hardly be therapeutic. Moreover, if the conditions are not good it is difficult for departments to attract the best kind of staff, or certainly to hold them for a sufficiently long time. Indeed, the rapid turnover of staff is one of the reasons that appropriate treatments are not standardized at as high a level as they might be; talents and best methods of treatment can only be used well if the doctors have an opportunity of practising their skill over a sufficient period of time.

It is not easy to diagnose scientifically the reasons for the lack of action on the part of the hospital authorities; yet the fact which has been borne out by this study, that casualty departments are poorly housed, equipped and staffed, may well be one result of a simple kind of technical vanity. In the main, the cases dealt with seem to be of a relatively minor character. The drama of a major emergency—a railway disaster for example—is fortunately a very rare event. The fact that the Harrow and Wealdstone train crash stimulated a call for administrative action on the part of regional boards to overhaul their arrangements for major disasters, shows that the drama created by calamity can directly stimulate action. The benefit of the action then taken was seen several years later at Lewisham. On the other hand, the chronic problem of how to deal with the run-of-the-mill material which constitutes most of the work of casualty departments seems to be, in general, ignored by the planners, whose attention seems to be focussed on the demands of booming specialties. Perhaps, because there are so

* Home Office, Ministry of Health and Scottish Office. Final Report of the Inter-departmental Committee on the Rehabilitation of Persons Injured by Accidents. London: H.M.S.O., 1939.

many trivial cases, it is exceptional for there to be a consultant other than in nominal charge of a casualty department, or even taking an interest in the day-to-day problems presented by casualties. One result is that no authoritative voice can speak up for the department in committees or bring sustained pressure for changes and improvements. It is not remarkable then that the case for reform has not been pushed far during recent years when the little money that has been available for improving the fabric and material of hospitals has been the subject of competition among the more powerful departments.

Because conditions are bad or there is no continuity of treatment or supervision, or the staff is poor, very little real clinical research is being carried out into the medical aspects of the kind of injuries which casualty arrangements deal with. This again diminishes the interest of casualty work to staff of quality.

3. *THE IMPRECISION OF THE TERM 'CASUALTY'*

The casualty department owes its separate existence to the demand for treatment for emergency illnesses or injuries from accidents. Despite the rationalization of the arrangements for medical care which followed the National Health Service Act, the term 'casualty' still covers all sorts and conditions of departments, the vast majority of which are organized to deal with a broad range of cases. It is significant that for statistical purposes (S.H.3.) the Ministry of Health defines a casualty attendance as:

> 'A patient who comes to the hospital unannounced and is seen and treated otherwise than at a consultative session';

thus the sort of organization hospital authorities consider necessary depends on which kinds of 'casual patient' they feel they should provide for.

At the beginning of the study the rather slender evidence available about the work of casualty was examined, and it was noted that Dr. Lionel Fry, who had been a house officer in a London teaching hospital, estimated that a very high proportion of 5,000 cases were more appropriate for treatment by general practitioners.* The high proportion of 'casual patients' who might

* *Lancet*, 1960, *i*, 163.

be attended by their own doctors is also noted in Crombie's survey at Birmingham.* Of course a great deal depends on the criteria used for classifying patients, and in the spot checks taken in this survey (See Chart, Plate 1, fifth column) the patients placed in this category were those attending the casualty department without a general practitioner's letter and with a complaint which was not the result of an injury and did not require urgent treatment. The experience here was that the proportion of patients in this category varied greatly. In fact in some places the demand from this class of patient was negligible, especially where a good relationship existed between the general practitioners and the hospital. Again, even if there was no such close relationship but where there was an active policy of discouragement (see pages 109 and 112 Appendix II), the number of patients using the casualty department as an alternative to a general practitioner's surgery tended to fall. Of course, it must be recognized that where a large population travels great distances to places of work, say in the centre of a city, there will always be pressure on the hospitals from people who are suddenly taken ill away from their own neighbourhood—as there will be from shift workers too; but it seems that with adequate measures the demand need not be great enough to cause special difficulties.

More fundamental still, so far as the organization for treatment is concerned, is the question of the incidence and severity of the conditions of the 'casual patients'. It was surprising how little information was available in hospitals on this aspect. Lowden has given some indication† of the kind of casualty work met with, but he does not deal with numbers. Certain broad assertions relevant to this issue are made in the B.O.A. Memorandum, 1959‡ but again their basis is not given. Apart from these studies the most recent documentation has been by Mestitz.§ All three studies show that many 'casualty' attendances are for minor conditions.

An attempt has been made in this study to discover the workload of the department visited. The results are given in Plate 3, and discussed in Part IV, Section (F)(iv). The urgent need is for casualty departments to be organized so that they can deal with patients who require immediate diagnosis and urgent treatment,

* *Journal of the College of General Practitioners*, November, 1959.
† *Lancet*, 1959, *i*, 1239.
‡ British Orthopædic Association: Memorandum on Accident Services, 1959.
§ *Brit. med. J.*, 1957, *ii*, 1108.

and it should be recognized that the needs of such patients are paramount. It is proposed now to call such patients *'urgent accident and emergency cases'*.

4. *THE 'IMAGE' OF THE HOSPITAL*

(i) *As an Independent Provider of Medical Services*

Thus the unqualified use of the word 'casualty' is virtually meaningless because each hospital at present tends to have its own conception of the arrangements it can make (rather than of what is necessary) for the reception of casual patients, who might well range from serious accident cases to trivial medical cases requiring not even an aspirin. The view of its responsibilities taken by a hospital may not have changed for years, and may even ignore the vastly altered arrangements in the health services since 1948. Sometimes the only changes made are those produced by internal pressures. It became obvious in the survey how varied were the conceptions of the function of the casualty department and, even more so, what little constructive thinking was being done about its future (see Appendix IV for a selection of observations on this point).

This leads to the conclusion that the 'image' of the hospital, in the eyes of those responsible for its policy towards the community, needs to be kept under constant review, especially where it embodies a policy for casualties, such as that of the 'open door' which may well disregard the current local circumstances altogether. Frequently an ineffectual attempt is made to provide an all-embracing service in each of a number of hospitals, whereas an effective and rational organization would be practical if proper use was made of the services, facilities and staff of all hospitals, the industrial medical services and the general practitioners in the area. Casualty departments are just as subject to Parkinson's Law as other organizations, and if they are organized to take a broad band of cases, or to absorb all demands on them, including that of being an alternative to general practitioner consultations, they will certainly not lack for customers. The danger is that such unnecessary pressure may obscure the more pressing needs to receive patients in urgent need.

It seems obvious that in the year 1960, with a nationalized

hospital service, two or more hospitals with overlapping catchment areas should make arrangements that jointly recognize the needs of the population as a whole. Yet in at least one important city the difference in standards of casualty departments between the teaching hospital and those of the non-teaching group were so great as to raise doubts about the wisdom of a system which allows the teaching hospital to rest content with its own standards, without imposing an obligation on the board of governors and the regional hospital board to get together and ensure there is an adequate service for the community. Through the regionalization of hospitals around teaching hospital centres, it was hoped that the teaching hospitals would encourage the community hospitals to aspire towards their standards and experience. It is not perhaps necessary to be drawn into the debate whether administrative machinery is needed to encourage such leadership in the field of casualties, but surely it is not too much to expect that there will be goodwill and a common approach on the part of the authorities concerned with both teaching and non-teaching hospitals, to discover what is needed for the communities they jointly serve, and by complementary and related action, to meet the requirements revealed. Not everyone has the knowledge and sophistication to distinguish between hospitals which provide services vastly unequal in quality. Anyway the individual in urgent distress has virtually no choice, since he may well be taken against his conscious will to the nearest casualty department. It seems wrong in principle that there should be such widely different standards of local service as were revealed in this particular city.

Of course, outside factors also affect the load placed on casualty departments. A sample of records taken from three of the earliest hospitals visited and showing the source of referral reveal the wide variation in local conditions and practices:

Source of Referral to Casualty

Source	*No.*	*%*	*No.*	*%*	*No.*	*%*
Own volition . . .	105	60	101	43	228	56
Own G.P.	17	10	80	34	100	24
Works accident . . .	40	23	40	17	35	8
Road accident . . .	8	4	10	4	*	
Other clinics and hospital departments . . .	4	2	3	1	*	
999 calls	—		—		32	8
Others	1	1	2	1	—	
	175		236		410	

* Catered for specially by a neighbouring hospital.

The interesting results of this preliminary count were borne out by the statistics drawn from the later analyses (see Table V, page 65).

Thus, in considering the organizational problem, it is important to recognize what services are currently available outside as well as inside the particular hospital. Any solution must take into account the needs of defined areas and, where different planning authorities are involved, there must be a common approach.

(ii) *As a Source of Teaching Facilities*

It would be over-simplifying the situation to suggest that the tendency for a hospital to carry out its casualty function with little regard for what is happening elsewhere in the area, is due only to a jealous regard for a tradition of services founded in another age; nevertheless the special claims sometimes made for the inviolability of the 'open door' policy are open to question. For example, a claim is often made for the special teaching function of a casualty department, without specifying what kinds of training are implied —undergraduate, postgraduate or refresher. It is asserted that the casualty department provides the undergraduate with a cross-section of patients of which the 'medical, non-urgent casuals' are an essential part. Yet is this not to mistake the real potential of casualty departments for teaching? Fundamentally, these departments should be the resort of those in need of *immediate* diagnosis and treatment. If the intention is to give the student general practitioner training, surely special arrangements should be made to provide it under conditions analogous to those in which the

G.P. serves—even though many cases may only be seen in their earliest stages in the casualty department.

Again, is it sufficient merely to lay down that a doctor must hold a certain casualty post before embarking on his training for the Fellowship of the Royal College of Surgeons, without defining closely the kind of work he is required to do in this post, and ensuring that he does it under proper supervision ? The survey has shown that in many instances the supervision of the consultant is purely nominal.

These perhaps seem obvious questions, but they raise fundamental issues on the policy to be adopted towards improving the arrangements for the reception of casualties-in-need. It cannot be said that the survey provided any reassurance that these matters are getting sufficient attention by the authorities concerned, or that they are likely to be answered without an objective examination of the existing practices in casualty departments.

Here are observations from the reports on three teaching departments visited, which illustrate some of the complexities of the issue of 'teaching'.

On the lack of co-ordination of teaching

> *'The main defect of the department is isolation not only from the rest of the hospital's departments and the G.P. services in the area, but also from the other accident services in the area..... there is no co-ordinated teaching of junior staff and students; for example a Colles's fracture would be reduced without an X-ray (the point was made that the hospital was thus saved the cost of X-rays) but if it should happen that it is a Smith's fracture, the patient returns for treatment at the fracture clinic the following day and an entirely different surgeon may deal with the case. This must cause confusion to the students because some of the teaching is diametrically opposed.'*

Again, in another hospital, on the haphazard objectives of teaching

> *'The consultant staff agreed that the medical students' fortnight's training period in the casualty department was too short and came too early in the curriculum. Senior students had recently been offered an extra two weeks in casualty in their fifth year, but all had refused this opportunity on the grounds*

that they could not afford the time; their teachers complained that many were now taking the Conjoint examination early in their final year . . .

During their fortnight in casualty, when the students come under the general supervision of the senior casualty officer, the only direct teaching by the senior staff is at the orthopædic consultant's two fracture clinics and the one-hour infected hand clinic, each week. Even if the senior staff were aware of the need, there was no attempt at preliminary briefing of students, or later discussion of the function of casualty, relations with G.P.s, processes in selection of cases, etc., let alone active treatment—for instance, Kaolin was still in routine use.

'Although on the whole the consultants did not consider that the training period in casualty was of any value to future G.P.s, lip service was paid to their opportunity of seeing how the department worked, but at least one member of the consultant staff took the view that it was actually bad policy to let the students see all the trivial cases which should by rights not come into a hospital; but there was never any discussion about this aspect, so that the students' views and their attitude to G.P.s could only be disparaging.'

In yet another hospital, an entirely different view

'The training of students and junior staff in casualty is mistakenly regarded as a good basis for general practice. . . . On the question of litigation it is impressed upon the students that if they do a thorough examination at their own level of professional skill and take careful notes, they may be grilled, but they can never be accused of negligence. As a result of this teaching they have had no worries on this score in the department.'

* * * *

In the non-teaching hospitals where, theoretically, many of the junior posts are designated training posts, the situation is intrinsically worse because in most of the departments inspected there was no adequate consultant supervision of the work, although the Royal College of Surgeons' provisions, no doubt, assume an entirely different state of affairs. Presumably these provisions imply that a particular level of clinical material is to be expected in such

approved departments. The following extract from a report on a hospital providing a doubtfully adequate service to the public, within the shadow of a teaching hospital, may point perhaps to the general rule, rather than the exception:

> *'The casualty officer, S.H.O. grade, was chosen for the appointment without British hospital experience, from twelve candidates, all overseas graduates, only one other having taken his Primary F.R.C.S. Although obviously a bright student and a good examinee, his techniques included prescribing mag. sulph. dressings for closed abscesses and delayed suturing of abrasions. He insists on doing all the minor (and unnecessary) stitching himself. In fact he is putting in office hours to satisfy the Royal College of Surgeons' requirements before taking his Fellowship. He has no access to the wards.'*

* * * *

It would not, therefore, be overstating the case to say that there is as much need to review the range of teaching undertaken by casualty departments as there is to review any other aspects in which they seem to be defective. Indeed, if the experience of the survey is any indication of the general position, a review might provoke disturbing questions fundamental to the future organization for casualties.

It would seem necessary to relate the teaching to the content of work expected, weighting it heavily towards the range of injuries which, though apparently slight may require immediate recognition and special treatment if the patient is to make a complete recovery in the shortest possible time. Special attention should be given to the training of the doctors in early diagnosis and in making important decisions. The nature of these decisions will depend on the availability of special services and skills; and realism suggests that these services cannot be available unless the reception of emergency cases is first planned on an area basis, and fitted into all the services for medical care.

The requirements for teaching casualty work do not preclude area arrangements in which the teaching hospitals play a major part. Indeed, the searching examination that would be required in order to plan such arrangements would make it essential to have a critical appreciation of the objectives of undergraduate and junior

staff training in casualty work. This would also involve at the post-graduate level a closer enquiry by the Royal College of Surgeons about the supervision of designated training posts. If there was a possibility that recognition would be withdrawn if supervision was not satisfactory, the effect could only be salutary.

5. *NO CASUALTY DEPARTMENT IS AN ISLAND*

While it may be convenient for purposes of administration to distinguish the casualty department separately, in practice its function cannot be separated from the other work of the hospital, or of the other services for medical care in the area. Of course, any reorganization of services, to be effective, will have to be realistic; it might be a comforting exercise to draw up a blue-print solution which avoids the worst faults of the present casualty arrangements, but such a plan is unlikely to be adopted unless it is essentially practical, and to be really useful, it must make full use of all the resources of the hospital and ancillary services in the area.

This is the main reason why there is no substantial case for a country-wide chain of casualty hospitals dealing only with injuries from accidents as special cases. The range of injuries from accidents has such a wide compass that it would be patently uneconomic to require the concentration of all the medical specialties needed for their effective treatment in special accident hospitals. On the other hand the injuries are undoubtedly so varied that for an effective service the organizational base must be broad. There is also support for this requirement in the present state of staffing. The shortage of junior medical staff is obvious enough already, but the acute danger of even greater shortage in the future is masked by the present supply of overseas graduates who are in the United Kingdom for practical training and experience. It is even more urgent therefore to consider area schemes of rationalization of services for casualties which take account of all supporting services.

6. *'CASUALTIES'—THE NEED TO AVOID GENERALIZATIONS*

In this study, as more hospitals were visited, it became increasingly obvious that to speak of the 'casualty' problem was to be

too vague and that it would be dangerous to generalize about solutions, without examining the nature of the particular problems posed to the hospital authorities by those individuals who, by will or necessity, are found daily as unexpected patients. The word 'casualty', whatever its etymology, or the definition placed on it by the Ministry of Health, has in common speech now come to mean some kind of bodily injury as a result of an accident or an acute medical condition such as coronary occlusion. The development of accident services or departments over the last twenty years, slow as it may have been, is a tacit recognition of the fact that the increasing incidence of accidents in their most violent form results in injuries which are dramatic enough to place a special emphasis on surgical rather than medical skills in arranging for the reception of 'casual' patients (see again Plate 3). Yet, because of the range of injuries met with in accidents no one can seriously press for a separate specialty for casualty. Indeed, in their Memorandum on Accident Services 1959, the British Orthopædic Association made no qualification of their view that 'the creation of "casualty surgeons" who accept full responsibility for the treatment of injuries in every part of the body would therefore be an undesirable development'. Significantly, however, so far as the experience of this survey is concerned, the Memorandum also commented: 'The quality of the medical care available to the victims of major disasters will depend upon the standards that already exist in the community.'

7. *PRINCIPLES RELEVANT TO ORGANIZATION PROBLEMS*

It was found impossible in this study to suggest a structure for casualty services which could be applied universally. On the contrary it emerged that there can be no fixed pattern, though a few general principles can be outlined for the ideal department.

(i) It should primarily be staffed and equipped as a service to those injured by accident and to those suddenly attacked by illness and requiring immediate attention and treatment.

(ii) It should have immediately available at any one time a medical man of consultant quality, able to screen cases and diagnose those requiring immediate attention, either

through the facilities of the department itself, or with the help of the whole range of surgical specialties of the hospital; and to ensure that attention is given at once.

(iii) It is irrelevant what kind of basic specialty such men should have. They should, however, have a broad basis of knowledge and be trained to recognize those conditions in need of urgent treatment. If they are employed whole-time or for a substantial part of their time in this kind of work, they should feel assured about the stability and importance of this part of their career.

(iv) Such a service should have at call all the diagnostic aids necessary.

(v) The service should be available throughout the twenty-four hours of the day.

Such principles immediately suggest the need for the ideal department to be founded on the full range of resources normally available only at a general hospital and with a substantial enough load of cases to justify the kind of continuous staffing required for the department. It would be to claim too much to estimate precisely the order of case-load for this, but the minimum is unlikely to be below 20,000 new cases a year, not counting the relatively minor medical conditions which may also be expected. Below this level, the load is unlikely to be sufficient to justify the continuous services of men of consultant quality both to deal with the cases and to carry sufficient weight in medical committees. Nor would a load smaller than this justify the holding of medical interviewing committees for resettlement cases, say, once a fortnight.

From the experience of the survey such needs suggest a catchment area (assuming a fairly large town at its centre) with a population of not less than 300,000. Clearly large boroughs and districts in many parts of the country fall outside such a size and it then becomes important to consider how the existing services of the suitable major hospital in such an area should be arranged to secure a twenty-four hour cover of reasonably comparable quality to fit into the above principles. It will still be necessary to provide for the real, as distinct from nominal, consultant cover in the main casualty departments, for it is really not sufficient to carry on the present stop-gap arrangements for S.H.M.O. appointments of senior casualty officers for such places. If the circumstances do

not justify whole-time consultant appointments, it is surely not beyond administrative ingenuity to cover the needs of the department. A mixture of, say, a new part-time appointment for a 'casualty' consultant covering six or seven sessions a week, the balance of time being covered by requirements written into existing surgical contracts, might be the right line to follow. It is relevant that this may at first call for notional sacrifices on the part of the holders of existing consultant appointments. In some cases it may in fact involve the reduction in bed responsibility; but it should be related to the context of a rationalized and improved service, designed to deal with a class of patient which at present is not receiving sufficient attention.

In certain areas where the requirements are relatively simple and do not justify even this kind of modified arrangement, the local services should be geared closely to the special services available elsewhere in the major hospitals of the area. The important principle, however, is to provide full cover by adequately trained doctors and to ensure co-operation from all specialties.

8. *THE NEED FOR LEADERSHIP*

Although this is probably the most intensive and detached investigation ever undertaken on the subject of casualty arrangements, it is difficult to draw firm conclusions and make recommendations which are so definitive as to call for arrangements for a 'national' organization for casualty services. But it is certain that in order to design an accident service even at regional level it would be necessary to produce facts which at present are not obviously available, about the extent, nature and weight of the demand to support such a special organization. This survey has, it is true, suggested that executive action is necessary, but to ensure that such action is worthwhile, it is essential that the hospital authorities should themselves first survey closely their area resources against the needs which can be established. This action should be taken sooner rather than later because of the shortage of trained medical cover and the inadequacy of the present services.

What is needed immediately is a wise lead from the Ministry of Health and regional boards on such policy issues as the 'open door' ; the need to look at services on a reasonably wide

area basis with all that that implies about rationalization; the adequate supervision of, and participation in, casualty arrangements by consultants (the regulations of the Royal College of Surgeons might well be tightened on this matter, for 'approved departments'), the duties and responsibilities of junior staff *vis-à-vis* emergency cover; the physical improvement of accommodation and equipment; the education and training of undergraduates and junior staff should also be reviewed at the same time.

9. *ASSESSING THE PROVISION OF MEDICAL CARE FOR CASUALTIES*

The call for such leadership cannot be answered merely by issuing pious opinions. There is a real and urgent need for the regional hospital boards in association with teaching hospitals to initiate survey parties consisting of clinicians and those trained in social medicine techniques, to carry out operational studies of area arrangements. The work of such parties is not only likely to establish the need for executive action, but will also reveal the real state of affairs to the surveyors, who should count among them the leaders of the medical profession. The visits of such parties are also likely to be educative and stimulating to the practising clinicians in the hospitals. Regional hospital boards should recognize the special character of such groups and perhaps build up a panel of senior clinicians from which they can be constituted. The skill and experience of many a distinguished medical man, who at present is compelled to retire at the age of 65, yet has some years left for active work, could well be employed in the core of such a group, which should, however, be completed by consultants still engaged in hospital practice.

In Great Britain so far, virtually no field or experimental work has been carried out with the aim of assessing systematically the effectiveness of services for medical care. This is really surprising, for the nationalization and consequent moves for the rationalization of health services would seem to have allowed more opportunity for such work to be carried out than, say, in the United States. Yet in America the foundations of assessment of medical care have already been laid, even if gently, in the Accreditation System for Hospitals, in general practice through the work of Petersen in North Carolina,

and in the critical self-examination of the clinicians of the Health Insurance Plan of New York.

Without getting the facts it is difficult to advance a solution for casualties which will cover all the needs, and take into account the limitations in the supply of capital and personnel, which affect the whole hospital service. One thing, however, is certain—the best answer will not be arrived at by speculating about organization on paper; it demands a great deal of preliminary field-work.

Many of the regional hospital boards are understood to be themselves looking into the question of casualty departments. Certainly in one region plans are being drawn up to establish an organization to deal with major accident cases and an interesting survey is being made of the present movement of the seriously injured. This is excellent in principle, but not if it makes the assumption—which could be dangerously wrong—that 80–90% of the present case-load is being adequately dealt with under the current arrangements. Although it is acknowledged that the physical accommodation of the departments leaves much to be desired, yet in many ways the key problem is how the serious, but neither crippling, nor eventually fatal, cases are being dealt with.

Twenty-five years ago the British Medical Association's Commission on Fractures published a report, the basis of which was a comparison of different types of treatment. This report did much to draw attention to inadequacies of certain aspects of the casualty services then. Is there not a case now for trying to assess under modern conditions the effectiveness of arrangements by the examination of treatment? Very little work has been done in this country to evolve methods of clinical assessment, but it is hoped that one of the results of this study will cause the authorities to consider how this can best be attempted.

Epilogue

It is tempting to view the hospital service as a homogeneous organization, and, since its structure is man-made, capable of rationalization. This is particularly so since in our tendency now to analyse and possibly over-simplify, we have come to look at hospitals as a collection of services functioning severally but together as part of a machine. Fundamentally there may be something in the belief that in ideal conditions the service offered to mankind by hospitals can be perfected, but it needs no research to realize that the raw materials of such services, the personal skills, the pressure stemming from the special traditions of localities, of professions, of specialists within such professions, are not the stuff of machines and cannot be readily moulded in a short period of time to conform to the mathematical perfection of a blue-print. Thus too often a good case for reform fails, or is ignored, or is depreciated, because the action advocated takes little account of the complexities and realities of the situation. On the whole, one of the main objectives of the surveyors was to view casualty arrangements in hospitals as sympathetically as possible. One of the firm conclusions of the report is a call for the hospital authorities to examine the casualty services of particular hospitals in relation to the broad needs of the communities which they serve, and possibly this may mean the reduction in status, or closure, of certain departments.

There will always be opposition to change which involves the arrangements of such venerable and conservative institutions as hospitals and, though such opposition should be respected, its strength should not be over-estimated. In one of the places visited it appeared that after a great deal of opposition—it was said from the general practitioners—the casualty service for the whole city had been concentrated in one hospital. It seemed from the experience of the survey that this development had been, in practice, a success. Certainly, although the department so far as the day-to-day function was concerned had been badly planned, the service provided was impressive. The story of how executive action was eventually triggered off is, however, illuminating:

'The three main hospitals each had some facilities for treating casualty patients, either in receiving wards or first-aid accident rooms. For the first six years under the National Health Service Act, these casualty services worked on an intake roster system, each one providing an emergency service for twenty-four hours at a time, changing over at midday. At two of the hospitals these departments were staffed by house surgeons, house physicians and the nurses from the outpatient departments. At the third was a casualty officer who, when the department was closed, worked on the men's surgical wards. It seems that only the ambulance service and the bed bureau really knew which hospital was on intake at any one time, and the inconvenience, frustration and sometimes real hardship for the patients provoked strong criticism from the public and general practitioners alike.

However, matters only came to a head, so the team were told, when one of the city councillors broke his leg at 8.45 in the morning and, having been round to all three departments, without being properly examined, he was finally admitted to the orthopædic hospital after an X-ray at 7.15 p.m. As a result of political, more than medical, pressure the regional hospital board then took action and integrated all the casualty services for the city in a newly built department, in 1955. It is said that there is now no opposition to the revised arrangements.'

APPENDIX I

EXTRACTS FROM REPORTS BY THE SURVEYING TEAM ON MEDICAL STAFFING IN THE HOSPITALS VISITED

(1) *Nominal or little interest on the part of the consultant*

The casualty department is the responsibility of the general surgeon who has been forced to take a hand in organizing the work of the department because of staffing difficulties rather than from his interest in its clinical function. No other senior staff have any contact with casualty.

* * * *

Interest in the orthopædic aspect of the work has now begun to grow as a result of the appointment of a second consultant orthopædic surgeon who runs the fracture clinic and is watching the standards of the initial treatment of fractures. He has, however, no official responsibility for the casualty department as a whole.

* * * *

The department is nominally under the supervision of a consultant general surgeon, who is theoretically available at any time to be called down to the casualty department, although in practice this rarely occurs. The hospital staff say they are aware of the need for better day-to-day supervision of the treatment of minor injuries, and consider themselves fortunate to have a close—but informal—interest taken in the department by the orthopædic consultant.

* * * *

The six consultant general surgeons on the staff of the hospital are responsible for one-sixth of the emergency admissions each, but casualty patients are apparently not taken into consideration in this 'pattern of consultant responsibility', as it is called by the hospital. There is no specialist orthopædic surgeon in the whole of the hospital group, all this work being spread out among the six general surgeons. The medical superintendent took the view that such an appointment would spoil the present, easy pattern. Practical responsibility for the department is consequently in the hands of the S.H.O.

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On the question of responsibility for casualty, there is a discrepancy between the official hospital view and the arrangements seen to be working at the time of the visit. The secretary of the hospital management committee wrote, 'The consultant orthopædic surgeons are mainly responsible for the department and the senior surgical registrar deals with the day-to-day medical staffing.'

On the visit, however, the team were told that one of the consultant general surgeons was in charge. Theoretically his main responsibility seems to be to arrange the rota for the casualty department, but in fact this is done by the surgical registrar and it is said to be a difficult task. It was said that neither of

these surgeons ever appear in the department itself for it is the orthopædic registrar who is usually called down when necessary.

* * * *

The department is the nominal responsibility of the general surgeon and the orthopædic surgeon ... little active interest on the part of the consultants has been shown in the department's running.

* * * *

(2) *Active or close interest by the consultants in the day-to-day running of the department*

The consultant officially in charge of the casualty department is an orthopædic surgeon. He does not consider himself in any way as the director of the service, but as the senior of a team of three orthopædic consultants who are jointly responsible for the clinical work in casualty. There is shortly to be an additional orthopædic consultant appointed to the staff, and the service will then be divided into two units, each responsible for intake to the centre on alternate days, also covering the casualty department and taking the afternoon fracture clinic there with the surgical registrar or the second senior casualty officer, at which all the major soft tissue injuries are also reviewed. This will in effect be a continuation of the previous arrangements in which the consultant staff were on call for advice to casualty on weekly tours of duty.

The consultants are now taking an active interest in the organization of the new department, even if they were not fully involved at the planning stage. They are themselves now overhauling the major disaster plan for the area, to be based on the new service.

The team will consist of:

On call: 1 Consultant, 1 Registrar
In the casualty department: 1 S.H.M.O. Senior Casualty Officer and 2 S.H.O.s,

and will also include on call cover from the neurosurgical and plastic units. When not covering casualty the senior casualty officers also have duties on the wards. The two S.H.M.O. senior casualty officers are well above the average quality for this grade yet seen in the survey. This is the highest proportion of medical staff for a casualty department seen in a non-teaching hospital. Under the team system the department of course is not faced with the usual difficulties of providing off-duty cover.

* * * *

The consultant in charge is probably unique in the active interest he takes, as a consultant, in the running of the casualty department and the thought he gives to problems of casualty generally, for his several articles on this subject form by far the greater proportion of all written material on accident and casualty services in the medical journals. It is even more surprising therefore that, as a full-time general surgeon, he has tacitly accepted responsibility for the clinical work of the department without any formal undertaking and he has been allowed no authority to arrange appointments, organize off-duty cover as he would wish, order special equipment or even power to admit cases to other's beds.

His interest in casualty and accident services dates from his R.A.M.C. service during the war when he was concerned with the communications and supply side of field ambulance units, and this interest has now become his chief

hobby, centred in the department. It is clear that he gave a great deal of thought to the lay-out and details for the reconstruction of the department, under difficult site limitations, and has geared the organization to the proper tempo of casualty. He has also the energy and has made the time to survey and analyse different aspects of the work, for example, source of referrals, results of certain treatments and the incidence of reaction to tetanus anti-toxin.

The team did not meet any of his consultant colleagues and it is possible that he is pursuing a lone course in the local medical environment. It is probable even that the rest of the hospital staff are so relieved that anyone should take an interest in casualty that they have withdrawn from this particular field themselves.

Apart from his frequent informal visits to the department, he takes 2½ sessions per week actually at the same table as the S.H.O. casualty officer seeing both new and old patients, which is a higher degree of inservice supervision than found anywhere else. He is also available at any time of the day or night to give advice in the department should it be needed by junior medical staff.

Once a year he holds a seminar of up to six evening meetings for his own casualty officer, those from the nearby casualty departments and any house surgeon who wishes to come. He presents the main day-to-day problems in a short lecture, using photographs and some films, followed by a fifteen-minute discussion. He is not claiming in this way to train casualty officers, but he feels this seminar does fill a gap in training for accident work.

The sister in charge has always to accept a certain amount of extra responsibility every time the six-month S.H.O. appointment changes over and the consultant also increases his 'new attendance' sessions at such times.

* * * *

The casualty department is the responsibility of a consultant general surgeon. This charge was written into his appointment when he came five years ago. He has taken an active interest in the running of the casualty service and has been the prime mover in asking for and planning the alterations for the department when the new outpatient block is built and separated from casualty.

He appreciates the proper function of a casualty department *vis-à-vis* casual attenders, since on his appointment he circularized the local general practitioners with a letter, explaining the work of the department and asking for their co-operation in referring only true casualty cases.

The average figure of three attendances for every case reflects the policy of holding cases in casualty when treatment could equally well be completed by a G.P. or district nurse. This policy may tie up with the consultant's opinion that a 30,000 p.a. total attendance figure is the threshold required by the regional hospital board for S.H.M.O. senior casualty officer posts. It is not at all the same 'open door' attitude as at other places since there is a polite but firm deterrent against casual attenders coming to the department. Nevertheless the high reattendance figure is a contradiction in principle as regards hospital and G.P. responsibility.

* * * *

The casualty department is under the active control of a consultant general surgeon with maximum nine-elevenths of his time exclusively in the hospital, who takes his responsibilities towards casualty seriously and conscientiously. When the S.H.O. is off duty, the general practitioners provide cover for their own patients who become casualties and, if they are unable to come to the hospital quickly or a patient arrives who has no local doctor, the consultant is on second call. He does not therefore consider it beneath his dignity to be called in at any time of the day or night to treat a patient, even with only a minor

injury, and during his annual leave he frequently calls in at the hospital, not forgetting the casualty department, to keep a friendly eye on what is going on. He has identified himself very closely with the hospital and its reputation and is concerned with the activities of all the departments. He takes a lot of trouble to staff the junior resident post with good candidates, and generally recruits them himself, either through personal contact with the main hospital of the area, or from his old teaching hospital. Because of his efforts the hospital has been fortunate in the quality of its junior medical staff.

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(3) *S.H.M.O. Appointments made under the Ministry Circular of* 7.9.53

The S.H.M.O. casualty officer was appointed in 1954 and has been reappointed for one year. He is not a member of the medical committee. The consultant general surgeon was of the opinion that the casualty post was agreed by the Royal College of Surgeons as an S.H.O. training post, but the senior casualty officer appointment was officially approved at the higher grade under the Ministry of Health approval 94111/3/72 in 1954.

The senior casualty officer does very little minor surgery himself, preferring to admit such cases straight away to the wards. That such cases are admitted without question by the rest of the staff shows their confidence in his ability as a diagnostician. On the other hand, the consultant orthopædic surgeon is not confident in his treatment of fractures, and a working arrangement with the casualty sister transfers such cases immediately to outpatient orthopædic clinics. There is no contact on paper between the senior casualty officer and the general practitioners, partly due to lack of clerical help and partly to his disinclination to write letters.

He takes his place on the casualty rota, which includes all the junior staff of the hospital, for night duty and weekends. Three months ago there was a very acute shortage of junior staff when only the R.S.O. and one house surgeon were in post.

Both the hospital staff and the general practitioners agree that the senior casualty officer's appointment is a vast improvement on the previous hand to mouth situation five years ago when the work was covered only with difficulty by junior staff and a succession of locums. The hospital staff regarded the present S.H.M.O. appointment as a 'wonderful, permanent stop-gap'.

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When the J.H.M.O. casualty officer left in 1956, she was followed by a series of unsatisfactory locums until the present holder was offered the recently approved S.H.M.O. senior casualty officer post. In the opinion of the consultant in charge he is efficient, a good diagnostician and a hard worker between his official hours of 9.0 a.m. to 5.30 p.m. Punctilious with the staff in the department, he is apparently difficult to get on with so far as his medical colleagues are concerned. He is not on the medical committee.

He virtually does no surgery now as an ex-R.S.O. general practitioner in the town does two minor surgery sessions a week. The waiting list for 'cold' hernias, which the senior casualty officer is quite capable of doing, is up to three years. This is a waste not only of surgical skill and experience but of money, since the senior casualty officer is paid an S.H.M.O.'s salary for an 'office hours, diagnostic job'. However, the team found that at work he was thorough, conscientious and his patient handling was extremely good. The staff said that they had not had any worries over litigation in this department.

Contact between the local doctors and the department is very good. From the records seen the doctors' referral letters were answered fully and politely; six out of twenty-eight letters seen in the sample had not been answered, but in every case these were received on Thursday afternoons, when the senior casualty officer was off-duty, or at week-ends, when the casualty clerk was not there.

* * * *

The day-to-day running of the department is left to the S.H.M.O. senior casualty officer, who had been appointed after nine years as a senior registrar. The consultant general surgeon had certain reservations as to his clinical ability and on occasion had had to correct some of the procedures in the department. He felt that the senior casualty officer should be in closer touch with the general work of the hospital. He is not on the medical committee and the general surgeon said he would oppose any suggestion that he might be made a member.

The senior casualty officer cheerfully admitted that this recent reappointment was due to lack of other good candidates and in spite of getting practically no positive support from his seniors, he is content with his isolated position and would accept the appointment as a permanent one.

It is possible that in a different place this S.H.M.O. might be a casualty officer of a higher calibre. His patient handling, especially with children, is first class. He has a modern approach to the treatment of accidents. He is in fact carrying on quite a fair surgical practice in the department, dealing with major compound fractures as a routine. He is well ahead of other casualty officers in his attitude towards sepsis control and the problem of protection of patients against tetanus.

* * * *

The department is under a S.H.M.O. senior casualty officer, formerly a surgical registrar. His present four-year appointment is due to end in May (1959) but one year's extension has been applied for and, if the post is eventually upgraded to consultant, it is said he would like to stay on, in which case he would be welcomed on the medical committee.

However, when the group met the senior casualty officer he told them he wanted to get back to general surgery. In his view no one with these leanings could stick, for more than five years, 'the constant irritations of a casualty post', by which he meant 'the unending succession of uninteresting cases' as compared to major theatre sessions. He admitted the need for a senior man in casualty, but this appointment should also have general surgical interests, with full authority to admit cases into general beds under his own care. He thought an appointment with the promise of a transfer after four years to the full-time general surgical staff would be ideal.

* * * *

The senior of two S.H.M.O. casualty officers was appointed in 1953 and has been reappointed on a yearly basis since 1957. His leaning is towards general surgery rather than orthopædics, he has an enlightened attitude towards casualty work, especially sepsis risk, in which he has already proved himself a diligent detective. His ideas on the application of good, basic surgical techniques to the treatment of trauma, and the low use of antibiotics are very sound. At the

moment he is nostalgic about the close-knit, easily supervised organization in the old, comparatively isolated department, where he was in complete control of the work, and has not yet weighed this against the wider scope and opportunity for continuity of care which the new set-up has brought to the casualty officers, whose responsibilities are dove-tailed with ward work.

He has found time to analyse the records and once every three months goes through all the cards when checking as a routine on 'D.N.A.s' (patients who have failed to reattend for treatment). He gives regular lectures to the first-aid workers in the industrial medical departments and to the ambulance men to standardize emergency treatment and first-aid technique. He is also trying to build up, through informal meetings and personal contact, a closer liaison with the G.P.s in the area, to interest and educate them in the work of the accident service.

* * * *

Efforts had been made as early as 1946 to upgrade the appointment of a casualty officer at the hospital, but unfortunately, although when the consultant in charge came the committee had tried to write practical casualty duties into his contract, this was nullified by his appointment as general consultant surgeon in July 1948 Since then there had been an interregnum for about four years when the casualty department had to rely entirely on junior medical officers.

In 1952 the regional board advised the hospital that there should be no separate junior medical establishment for casualty. The secretary of the hospital management committee wrote to the group medical advisory committee:

> 'There is no specific provision for a casualty department establishment for the hospital. At present the work is being done by a "locum" of S.H.O. rank and a "locum" of J.H.O. rank. Alternative arrangements will now have to be made to dispense with "locums". A possible solution with the existing establishment may be to use the second general surgical registrar and an S.H.O. borrowed from orthopædics.'

Later the regional hospital board wrote to the hospital:

> 'As arranged ... I should be glad if you would amend your junior medical establishment to provide for an additional house officer for casualty duties, this post being a third-term house-officer, which must not be filled by a pre-registration candidate. It is also agreed that one of the two S.H.O. posts in orthopædics may be designated for casualty duties.'

This evoked a quick response from the medical committee, followed by further exchanges with the board. After yet further negotiations the Ministry agreed to the appointment of a S.H.M.O. senior casualty officer in 1955. On three occasions the post was advertised but never filled, owing to lack of suitable candidates. However, at the time of the visit an F.R.C.S. had recently accepted the offer of the appointment and was to take up his duties the following week (February 1959).

The consultant staff at the hospital would not commit themselves on the question of whether the new man would be admitted to the medical staff committee.

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Addendum to Appendix I (3)

Analysis of Questionnaires returned from Regional Hospital Boards on

SENIOR CASUALTY OFFICER POSTS, GRADED AS S.H.M.O. UNDER THE MINISTRY OF HEALTH CIRCULAR LETTER DATED 7th SEPTEMBER, 1953

A. THE APPOINTMENTS

I. *The Appointments*

(a) No. of appointments approved under Ministry of Health letter 94111/3/72 70
(b) Appointments made 61
(c) Posts never filled 9
of these, number allowed to lapse altogether . . 2
(d) Appointments now upgraded to consultant posts . . 3
(e) Vacancies at the date of enquiry (28.2.59) . . . 2

II. *Filling the Appointments*

(a) *Time taken to fill original appointments once approval had been granted*

Within 3 months 11
,, 4–6 months 21
,, 7–9 months 11
,, 9 months to one year . . 5
Over one year 13

(b) *Time taken to fill appointments on subsequent vacancies*

Within 3 months 15
,, 4–6 months 4
,, 7–9 months 4

(c) *Reappointments*

At end of 4-year period . . . 14
For one year only 1
Now under consideration . . . 4

B. THE S.H.M.O.s

III. (a) *Age Distribution on appointment*

	Present Holders	*Previous Holders*
Under 30 years . . .	—	1
30–39 years	33	18
40–49 years	23	6
Over 50 years	1	—
Ages not disclosed . . .	2	1

(b) *Qualifications*

U.K. qualified	51	18
Commonwealth* . . .	4	4
Elsewhere†	4	4
With Fellowships or M.D.s .	30	19

* Includes one New Zealander, one Australian, 4 Indians and 2 Pakistanis.
† This figure is made up of 2 Egyptians, 2 Viennese, 3 Poles and 1 Hungarian.

(c) *Status*

	Present Holders	*Previous Holders*
On Medical Committee	18	8
Not on Medical Committee	31	12
Information not given	10	6

C. INFORMATION ABOUT THE CASUALTY DEPARTMENTS

IV. *Responsibility for the Casualty Department*

Departments under a General Surgeon	16
,, ,, Orthopædic Surgeon	31
,, ,, the two above, jointly	8
,, ,, Plastic Surgeon	2
,, ,, Medical Superintendent (Group Radiologist)	1
No consultant's responsibility	4
Information not given	8

V. *Casualty '48-hour observation beds'*

Departments with beds especially allocated	12
,, without ,, ,,	50
Information not given	8

VI. *Rehabilitation Facilities*

(a) *Distance from a Rehabilitation Centre*

Within 5 miles	12
,, 6–20 miles	27
,, 21–30 miles	6
,, 31–40 miles	4
Over 40 miles	1
Information not given	20

(b) *Medical Interviewing Committees and Resettlement Clinics*

With Medical Interviewing Committees	22
With Resettlement Clinics	6
With neither	31
Information not given	11

VII. *The following are some of the reasons given by the S.A.M.O.s for NOT applying for approval to establish this grade*

A London Teaching Hospital

The situation here is that in December 1953 we applied to the Ministry of Health to have the post of senior resident and casualty officer graded in either the scale of registrar or senior hospital medical officer.

Our reasons for making this application were that since the war there had been few suitable applicants for the post because of the inadequate salary; the responsibility had gradually increased over the previous five years; similar posts at other teaching hospitals were placed in the higher grade; and that the post of senior resident medical officer did not form a link in the chain of promotion to more senior posts as did other registrar posts.

The authority for this increased grading was granted to us in February 1954 but we have subsequently not required to use it and all appointments have been made in the registrar grade.

A Provincial Teaching Hospital

The reason that the senior casualty officer post here has never been filled is not that we have been unable to obtain a suitable candidate, as the post has never actually been advertised. At the time approval was given to this post, the medical staffing of the orthopædic and casualty department was reorganized, and the approval of the Ministry obtained to appoint an assistant consultant orthopædic surgeon who included in his duties responsibility for the casualty department.

A Regional Hospital Board

I would confirm that no casualty officer appointments have been made in this region in the S.H.M.O. grade. This should not be taken as an indication that the medical staffing of casualty departments has not presented difficulties in this region, as the reverse is the case, particularly in the smaller peripheral hospitals, where we have had difficulty not only in obtaining casualty officers, but in obtaining satisfactory candidates for resident appointments generally. At these small hospitals the volume of casualty work does not justify the appointments of officers in the S.H.M.O. grade and we have had to do the best we could with the junior staff we could recruit with a substantial amount of supervision and direction from consultants.

We have managed to maintain a reasonable standard of service in the larger hospital centres, but this again was due in no small measure to the control, supervision and direction exercised by consultants in orthopædics and general surgery.

Consideration was given on a number of occasions to the introduction of S.H.M.O. casualty officers at some of our major hospitals, but on each occasion it was considered that a worthwhile job could not be provided for a surgeon in this grade, working solely in the casualty department, and without an allocation of beds, and operating theatre time. Inability to make provision of this nature for a senior casualty officer invariably prompted the surgeons to drop the proposal and apply themselves to improving the casualty service in other ways.

In two or three instances competent general practitioners with past hospital experience have been engaged as casualty officers for part-time sessional work, and these have been of great assistance.

Another Regional Hospital Board

We have no casualty department in this region to which an S.H.M.O. has been allocated. The reason is that the Board feels that these departments should be under the complete control and charge of a consultant, and with the normal junior staff working under him, and in the major hospitals to which an S.H.M.O. appointment of the kind indicated would apply, there is close and direct supervision of the work by a consultant orthopædic surgeon in each case.

A further point is that posts of this kind do not give the holder any security and, while a man of S.H.M.O. seniority might well be the right type of person responsible for the day-to-day work in the casualty department, such an appointment would not give a permanent solution to the present difficulties in arranging for satisfactory staffing in such departments.

(4) *Junior Medical Staffing*

There is an establishment for one casualty officer, S.H.O. grade, but this post has always been a problem to fill and, at the time of the visit, a locum had come in for one week. They hoped then that an ex-house officer, a graduate of Bombay,

would take on the job until Christmas, when there was a half-promise of an S.H.O. to take over the casualty officer appointment for six months.

Cover from the junior staff when the casualty officer is off-duty or when there is no casualty officer, has always been extremely difficult to arrange. In fact they have had two 'mutinies' among the junior staff; the first in 1958 when the obstetric houseman refused to do any extra duties in casualty. Since this affair rota duties have been formally written into all the junior appointments at the hospital, including, more recently, those of the E.N.T. and Eye house surgeons. In the brochure 'Notes for the Guidance of Junior Medical Staff', which has been printed by the hospital management committee, the section on casualty begins:

> 'ALL House Officers are required to perform casualty duties ON ROTA in the casualty department when the Casualty Officer is off duty. These duties in the casualty department have PRIORITY over ward duties...'

The second and more serious incident occurred two days before the team's visit, when the housemen elected one of their number to act as a shop steward, who argued that if they were to cover the casualty department because the hospital could not obtain a locum casualty officer, they should have the equivalent of his salary divided between them. The matter was dealt with very severely by the management committee, and, as it happened, a locum for a week was found the following day, but the incident illustrates the bad feeling which exists among the junior staff about these extra duties.

Most of the S.H.O. casualty officers over the past few years have been overseas graduates, and the consultant probably has had to put in more time in the department to supervise their work than he would normally wish. Part of the difficulty in getting junior staff, he maintained, was the proximity to the teaching hospital, which skimmed off all the cream of interesting cases, not only from casualty but from the hospital as a whole, although he agreed that his hospital had more than enough beds. All fractures are seen first by the casualty officer, who may reduce them straight away, but they must then be referred to the following fracture clinic.

* * * *

For some years all the candidates for the S.H.O. casualty post have been foreigners or commonwealth graduates. The casualty officer can at any time call on the consultant general surgeon or one of the registrars for advice, but it is more usual for him to collect cases for the consultant to review at a set time. Most Colles's fractures are reduced in casualty and sent on to the next fracture clinic, but all other fractures are referred direct after their X-rays have been read.

* * * *

Junior staff in the department are constantly changing and posts are difficult to fill. It is felt that it takes a month before a new junior casualty officer is really useful to the department. Altogether five different nationalities are represented among the junior casualty medical staff.

* * * *

The consultant told the team the post was held almost always by an overseas graduate; some of them were hard workers but had not the high clinical quality he would wish to see in the department.

Off-duty medical cover is a continual headache, with perpetual arguments about house officers' duties in the department. The system is worked out as follows:

> Medical cases are seen in casualty by a house physician, E.N.T. cases by a house surgeon from that department and genito-urinary and gynæcological cases by the G.U. surgeon. All other cases are covered by the casualty officer two nights in five, the house surgeon two nights in five and the other house surgeon one night in five. Therefore at present four residents out of a total of seven are waiting for calls to casualty, the majority of calls being for the house surgeons to general surgical teams.

* * * *

With the exception of one afternoon and two evening G.P. sessions in casualty, cover, when the senior casualty officer is off-duty, is given by the junior medical staff. Until the beginning of 1958, the hospital had always had British housemen; now all the junior staff are from overseas, and because of racial antipathy, relations had become so strained that the senior resident anæsthetist has had to take over the arrangement of the casualty rota.

* * * *

The S.H.O., who has been qualified for six years, has held five casualty officer appointments (four at London hospitals) and in each one she said she has had to lower her own standards of medical investigation and care. As there is no organized fracture clinic, she deals with these cases herself; the only way to refer serious cases beyond her scope and time, for consultant opinion, is to admit them, and they are then treated by a general surgeon. She feels strongly that she is expected to take decisions beyond her clinical scope, but there is no easy or quick way to get a senior opinion. Moreover the local general practitioners, without direct access to X-ray and faced with a waiting time of some weeks for outpatient clinics, and the 'inconvenience' of domiciliary consultations, refer cases to casualty for consultant opinion from an S.H.O.

The S.H.O's hours are from 9 a.m. to 5 p.m. Mondays to Fridays, and from 9 a.m. to 1 p.m. on Saturdays. Evening and weekend cover is given by the house surgeons or house physicians on duty in the wards; according to the sister it is not easy to get them down to the department quickly.

The senior casualty sister, of the usual high calibre, has been in the department since last November. She would like to stay in casualty work if physical and staff conditions were improved. She has a high regard for the present S.H.O.'s work and the responsibility she carries, and in fact she said the department is only able to cope with the continuous pressure because of her ability and hard work. Her predecessor was an Indian graduate who spoke only a little English and required the nursing staff to act as interpreters. There is no clerk allocated to the department; the nurses have to do most of the clerical work and the S.H.O. herself writes the letters to patients' general practitioners.

The staff at this hospital are coping with a tremendous patient load (1 S.H.O. and 7 nurses to 23,000 new and 35,000 total attendances per year). By this standard the S.H.O. probably works three times as hard as her fellows at the neighbouring hospital. There is no limitation to the kind of cases coming to the department; all are seen by the S.H.O. There are no large industrial medical departments in the area to relieve the department by treating minor injuries occurring at work which, according to the sister, make up the bulk of cases seen

in the department. The S.H.O. also said quite a high proportion of the patients seen were from the local gaol.

Any reference to non-touch technique in dressings would be quite out of context in this setting. There is a massive use of antibiotics, penidural being the most favoured. Sister said she had never known of a case being given tetanus toxoid.

* * * *

The S.H.O. casualty officers are shared with the orthopædic department, between them doing eight sessions a week there. While the senior casualty officer is holding his review clinic in the morning, all three are on duty in the treatment clinic and supervising dressings. At least two casualty officers are on duty together from 9.0 a.m. to 10.0 p.m. None of the other junior staff in the hospital therefore has to work in casualty; even at holiday times locums are used to cover the department.

The three S.H.O.s are of an unusually high quality for a non-teaching provincial hospital; there is a very happy team spirit in the department between all the grades, nurses and ancillaries included. Recruitment of junior medical staff is apparently easy in this area; there is a good link with a London teaching hospital and enough house appointments to steer junior officers through 2½ years of fairly wide experience before the majority take up general practice in the south of England. So there are no headaches here about staffing the junior casualty posts; not only is there a large pool of housemen to draw from, but the new department and the service's wide catchment area is an attraction not found elsewhere.

* * * *

At the present time the full-time J.H.M.O. casualty officer is on duty from 9 a.m. to 5 p.m. All junior staff below registrar grade are included in the casualty rota list, which shows that a great variety of staff cover is given in the evenings, at night and over week-ends. The nursing staff also added that it was not easy to get those on the rota down to the department.

The J.H.M.O. has had a lot of experience in casualty work, but is not acceptable for S.H.M.O. grade. He was a G.P. surgeon until 1948, then in general practice before taking up his present appointment. Although he has little chance of being upgraded he has given the department continuity and stability for three years. He has wide local knowledge, knows many of the casualty patients personally and is apparently very well liked by them. He is happy to stay on in his present position under the new S.H.M.O. and does not want clinical responsibility.

The S.H.O. had only been five days in the department. He had come for a six months' appointment and had already formed rather a poor opinion of the casualty work. He stressed the value of a month's training as an undergraduate in the casualty department, but thought that casualty work itself was a 'degrading occupation'.

* * * *

The J.H.M.O. qualified four years ago and has been in the department for two years. His training and experience has almost exclusively been in casualty, as a house surgeon, and, because of his local associations, as a medical student. He realises his own limitations and would be happy to remain in this casualty post permanently. The consultant staff at the hospital were not altogether happy about the appointment, but they had suffered so much in the past from having no one at all. In spite of his limited clinical aspirations, the J.H.M.O. has

thought out a scheme of tetanus immunization, much of which is to his credit and worth copying in similar communities elsewhere.

The consultants were very reluctant to press for an upgrading of the post to S.H.M.O.; they did not think such an application would necessarily be turned down outright by the regional board, but it would cause sharp reactions in other departments because an S.H.M.O. in casualty would unbalance the rest of the staff pattern in the hospital. With certain diffidence they thought the matter might be considered at the end of the present J.H.M.O.'s term of appointment, if only to get some degree of permanency and continuity, rather than on the grounds of the merit of the job itself, to make it financially practical to fill the post. The consultants would not commit themselves on the question of whether, should the post be upgraded and filled by a suitable candidate with an F.R.C.S., this S.H.M.O. senior casualty officer would be admitted to the medical committee.

* * * *

The present S.H.O., who has been eight months in the department, is young and enthusiastic, hoping to specialize in orthopædics. His prescribing, however, is on traditional lines, for example, ichthyol and glycerine on a closed furuncle. Moreover, unable to make a definite diagnosis, he sent a working man to bed for seven days for persistent backache, issued a N.H.S. certificate and saw no reason to notify the patient's doctor.

* * * *

The S.H.O. appointment is held by a conscientious casualty officer, more mature than the average since he qualified after retiring from the regular army. His diagrams of the site of injuries on the case notes are excellent. The S.H.O. does one minor operating session per week in the department. He has already arranged to go into general practice in the town in three months' time. The previous casualty officer was also appointed from the junior staff of the hospital, so to this extent their knowledge of the department while on rota duty has given some continuity over the last two years.

From 6.0 p.m. to 9.0 a.m. the department is covered by a roster of two house surgeons (one vacancy at present) and two house physicians. Week-end cover is given alternately by the R.S.O. and the orthopædic registrar from the associated hospital. Although the junior staffing problem is not as acute perhaps as in other places surveyed, the hospital secretary said that there was increasing difficulty in getting enough candidates, and candidates of sufficiently high quality, to apply for junior posts.

* * * *

The two S.H.O. casualty officers, holding 6-month appointments, although of the same grade are not of the same calibre as those at the nearby teaching hospital. The hospital prefers candidates who have been qualified over a year, and, after some years of difficulty, they say they are now generally able to achieve this standard of experience, although it is rare to find a candidate who has previously worked in a casualty department. Most of the casualty officers are eventually hoping to go into general practice. The only times when a casualty officer is not present in the department are from 5.30 p.m. on Saturdays to 9.0 a.m. on Sundays, and 1 p.m. on Sundays to 9.0 a.m. on Mondays, cover at these times being given, without much difficulty at this hospital, by the house officers on rota. From 9.0 a.m. to 1.0 p.m. each day, both casualty officers are on duty.

In the words of the consultant in charge, these S.H.O.s 'must be disassociated

from the rest of the hospital'. Their responsibility is limited by strict standing orders—all fractures must be sent to the next fracture clinic (held twice weekly); all minor surgery is done by the surgical registrar in the main theatre, to whom also are automatically referred all abdominal and head injuries. No case of any kind may be held in casualty for more than one hour without reference to the registrars. This rule applies particularly to examinations of admission cases to cold lists. Most medical cases on the lists are examined in fact by the casualty officers; otherwise other admissions are only registered (by the nursing staff) in the department. These admissions are said to amount to about 30–35 a day.

* * * *

The need for an experienced man in charge of the medical team in casualty is recognized and if possible the S.H.O. should have held at least two house appointments before his year as the senior of the casualty officers. There has been no difficulty in filling the junior posts, but it has not been easy to find good candidates for the senior one as the appointment is not deemed to provide enough variety in surgical experience and candidates of this age group prefer non-resident posts. The present S.H.O. impressed the team not only with his ability and technique, but also with the interest he takes in running the department, spending far more time there than his official hours. He is probably —and rightly so—using the appointment to establish his reputation, as a rung in the career ladder, which ideally in the team's view these posts should be made to represent.

The high establishment for the medical staff in casualty of course gives complete twenty-four hour cover. From 9.30 to 10.30 each morning, one of the casualty officers is occupied exclusively on the examination of new cases. It was said to be easy to get the surgical and medical registrars down to the department when required.

The S.H.O. has discretion to deal with any fracture, but all are automatically reviewed at the next fracture clinic, and, because of the proximity of the out-patient department and the two orthopædic sessions in casualty, there is probably a tendency to refer directly the X-rays have been received.

The staff were not enthusiastic about the possible use of general practitioners to do casualty sessions and did not appreciate the contribution they might make to training students.

There is a book of 'Do's and Don'ts' which has been written up by past casualty officers. Unfortunately (although probably tactfully while the consultants and the sister were conducting the team around the department) it was not available at the time of the visit.

* * * *

There are four S.H.O. casualty officers, two men from overseas and two women doctors, one of whom is at present a locum. In spite of the attraction of a newly built department these posts are still difficult to fill and it is believed more publicity about the new centre in the medical journals might ease the problem.

Until the new team system is properly established there are two G.P.s taking evening sessions in casualty twice a week. At one time there were five of these evening sessions, when the shortage of S.H.O.s was acute and the consultant in charge feels that at least one of these sessions should be continued under the new arrangements as an insurance against future, and probably even more acute, shortages of junior staff.

* * * *

Addendum to Appendix I (4)

Analysis of Questionnaires sent to three Regional Hospital Boards on
JUNIOR CASUALTY OFFICER APPOINTMENTS

A questionnaire on Junior casualty posts was sent to three Regional Hospital Boards serving:

(1) a predominantly rural region;
(2) a highly concentrated urban region in the provinces; and
(3) a Metropolitan region.

Ninety-five hospitals providing casualty services, but without S.H.M.O. senior casualty officer appointments, were covered. Of these 36 were general-practitioner hospitals to which most of the questions—those concerning grades of casualty officers, off-duty cover, etc.—did not apply.

The pattern was very much the same in all three regions in that there was a great variety between grades and numbers of casualty officer posts in each department, bearing little relation to the attendance figures and size of catchment areas served.

Section 1

In Region (1) all departments, with the exception of cottage hospitals, were the responsibility of some consultant, whereas in Region (3) 8 out of 30 hospitals had no consultant, even in nominal charge of the casualty department.

Section 4

In Region (2) only the two casualty officers appointed at children's hospitals could not admit cases direct from casualty. In Region (1) this access was limited to half the casualty officers; in Region (3) only those above S.H.O. grade did not have to refer to a senior colleague for admission of casualty patients.

Section 5

In Region (1) only one casualty officer also acted as admission officer for the hospitals as a whole. In the other two Regions this extra duty was added to about half the casualty posts.

Section 6

Region (2) seemed to have suffered least in filling casualty posts quickly—only three were vacant for more than six weeks. Region (3) suffered worst, especially over short periods and the two vacancies lasting over 12 months were also in this Region. Regions (2) and (3) made most use of locums in these circumstances; Region (1) appeared to rely more on a roster of housemen with occasional cover from locums.

Section 7

There are of course comparatively the greatest number of general-practitioner/cottage hospitals in Region (1), over half of which had G.P.s designated as casualty officers with regular sessions in the casualty departments (or first-aid rooms). In the other two regions at this type of hospital the G.P.s were mostly on call to the department, sometimes on a set rota, otherwise the questionnaire was filled in as 'G.P.s called in when necessary'.

* * * *

Information obtained from the Questionnaires

Section 1

Consultant Responsibility for the Casualty Departments		*No. of Hospitals involved*
Orthopædic Surgeons	23	(Including 7 first-aid/receiving departments treating casualty patients in outpatient departments without designated casualty staff: 5 in Region (1) 2 in (2))
General Surgeons	15	
The two above, jointly	4	
Superintendent Physicians	2	
Medical S.H.M.O.	1	
Surgical S.H.M.O.s	2	
No consultant responsible	12	59

Section 2

Grade of the most senior casualty post in the department		*No. of Hospitals involved*
J.H.M.O.s	17	
Registrars	9	
S.H.O.s	23	
House Surgeons	1	
Part-time S.H.O.	1	
G.P.s on rota, designated as 'casualty officers'	1	52

Section 3

Rota for off-duty cover includes:		*No. of Hospitals involved*
J.H.M.O.s	3	
Registrars	6	
House officers only	16	
Pre-registration only	7	
G.P.s.	2	
S.H.O.s	5	
Casualty officers giving continuous cover	13	52

Section 4

Admissions from casualty departments		*No. of Hospitals involved*
Casualty officers allowed to admit direct	36	
Casualty officers having to refer to a senior	16*	52

* Of the above, referral to:
Consultant, 4; Registrars, 8; R.S.O., 4.

Section 5

Casualty Officers also acting as Admitting Officers for the Hospital		*No. of Hospitals involved*
Admitting Officers	23	
Not Admitting Officers	29	52

Section 6

No. of weeks in 1958 when any of the casualty officer posts were unfilled	*No. of Hospitals involved*
Nil weeks 28	
1–3 weeks 4	
4–6 weeks 7	
* 7–10 weeks 4	
11–20 weeks 5	
21–30 weeks 2	
41–52 weeks 2	52

* *The following methods were used to cover these vacancies:*	*Number involved*
Locums 13	
Rota of house officers . . . 2	
By the two above . . . 6	
By locums and G.P. sessions. . 2	
By G.P. sessions only . . . 1	24

Section 7

General Practitioner Hospitals: Casualty Departments staffed by:	*No. of Hospitals involved*
G.P.s designated as casualty officers with regular sessions. . . 7	
G.P.s on a set rota . . . 12	
G.P.s 'on call when necessary' . 17	36

APPENDIX II

EXTRACTS FROM REPORTS BY THE SURVEYING TEAM ON ACCOMMODATION, EQUIPMENT, ORGANIZATION OF WORK AND CONTROL OF CROSS-INFECTION IN THE HOSPITALS VISITED

As is typical of an ex-municipal hospital, the common entrance for all patients (except outpatients on appointment) is through the casualty department, although medical and cold-list admissions are not examined in the department, merely registered.

The waiting room for casualties (apart from twelve chairs in the tiny registration office) is the main entrance corridor, which is so narrow that stretchers and trolleys have to be put through the most tortuous manœuvres to get into the various cubicles and treatment rooms. There are no signs in the department itself and the patients have to find their own way to the appropriate rooms, depending largely on who they meet, frequently having to rely on other patients who may be more familiar with the department. An attempt has been made to separate the clean from the dirty cases, but this aim cannot hope to be fulfilled in the present set-up, not only because of the physical obstacles but by this lack of proper direction of patients.

The registration office is very small, with dank and dirty walls; there is only just room for twelve chairs for waiting patients, the nurses' desk and the clerk's desk (for inpatient registrations). . . . Provided it is not raining, the 'recovery room' is the yard outside the septic clinic, half covered by a glass roof, where patients are put to recover on a hard chair (unless the staff have managed to borrow an invalid chair from the ambulance unit). In the yard there is a sink in which instruments and bowls are rinsed, the basin in the septic clinic being too small and the space too constricted. Ambulance men also use the outside sink in which to wash their hands. It is also the storage place for mops and buckets.

The 'clean' treatment and examination room is about twice the size of the septic clinic, with white tiled walls. There is a through draught from the entrance corridor. The examination table does double duty as the casualty officer's writing desk. There is an X-ray viewer and a 'clean' operating table in this room, also an antique sterilizer with unsafe electrical connections and most of its parts well soldered.

In 1956 at a cost of £7,000 to £8,000 an extension was built to provide extra cubicles for examinations. The design is very poor and has done nothing to enhance the department. One of the original ideas was to make an extra registration hatch near the main entrance for casualties only, in order to cut down the long queues; however, this was so badly placed that it led to the common queue waiting even further down the drive. The sister's room behind this hatch is never used as it is too isolated from the department's activities, so it has been relegated to an extra office where she makes up her books and where tea is brewed for the staff.

Immediately opposite the department, on the other side of the main hospital corridor there is an X-ray room especially allocated, but seldom used, for casualties. It is now used as an overflow for inpatient X-rays.

At present there are twenty beds allocated for traumatic and casualty cases, but they are mainly taken up by other specialties.

* * * *

The space for the casualty department is very adequate considering the size of the hospital, but the lay-out of the rooms affords little chance for segregation of any kind.

The department is at the back of the hospital and difficult for a stranger to find. The internal waiting corridor, in which dark brown paint has been used lavishly, is very badly lit and there is only room for one bench along the side for patients to wait before being called into the department. In fact this must be the most dismal introduction to hospital for any patient, and it is by no means a fleeting impression since the complaints from the general practitioners about long waiting periods were confirmed by the casualty staff, who attributed the main cause of delays to the slow X-ray service.

It is the contrast to this gloom which makes the rest of the casualty department seem more cheerful; there is far better lighting and ventilation here from the high windows, although little imagination has been used in the colours of the paint. The accommodation is made up of the casualty officer's consulting room and a dressing station on one side of the entrance lobby, and a suite of examination cubicles leading to the minor operating theatre with its ancillary rooms on the other. The sister said her greatest need was for more space for separate cubicles for dressings; it is possible that these might be provided from the adjacent rooms for the skin clinic, which are not at present being fully used. Beyond the theatre suite is Sister's office and what is called the recovery ward, with four beds, but which is usually used as a rest room for patients waiting to be taken home by ambulance, or sometimes as an overflow if a serious accident should occur. There are no official casualty observation beds yet, but the question of their provision is now under discussion. The recovery ward itself could quite conveniently be divided to provide two or three such beds if not used as it stands; the objections may be nursing cover at night.

An attempt is being made to cut delays in referring acute cases bound for a neighbouring hospital with special units, for the casualty officer now goes outside and examines patients in the ambulances, which saves time and their discomfort, rather than carrying them in and out again of the casualty rooms.

The equipment in use in the department is of average standard. The nurses do not use non-touch technique and the staff are not particularly sepsis conscious yet, although they will not be able to avoid for long the pressure in this particular region for better sterilizing practice. However, at the time of one visit the home sister had sops of penicillin-resistant boils dressed by her colleague, the casualty sister, who on learning the culture was Phage 80, ceased dressing them; but there was no overt planned hospital action, nor nasal swabs of other nurses in the home.

There is a separate casualty reception desk at the end of the waiting corridor, which is only manned for a short period—at the most two hours—in the mornings; after about 11.30 a.m. therefore, patients must depend upon being noticed by the nurses as they move between casualty and outpatients, and all this adds to the delays and the length of the waiting queue.

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The casualty department which, with the outpatient department, was built about 1950 virtually consists of two rooms, one in which the patients are seen, the other in which they are treated. There is no room specifically for shock treatment. Dressings are done in close proximity to the casualty officer's desk, which could make for close supervision.

The whole lay-out and organization of the department seems to be geared to turning away the 'casual attenders' on the one hand, and, on the other, passing the serious casualties through the department as quickly as possible to the wards, and the less serious cases back to their general practitioners as soon as the stage of strictly hospital treatment is completed.

The outpatient department shares the same entrance, waiting space and reception desk as the casualty department, the casualty patients being filtered through to the corridor to await their turn for examination. The general arrangements for reception and registration must be confusing for the patients.

Besides its inefficient ventilation, the casualty theatre is inadequate. The staff have to scrub up in the sluice room. For two afternoons a week the theatre is used for E.N.T. operations; it is also used at least once a week for dental sessions and often as an overspill from the main theatre on the first floor of the hospital, mostly for bronchoscopys. The facilities generally in the casualty department and the instruments in particular are of a poor standard.

It seems that no thought was given to casualty when the new outpatient block was built. Intrinsically there is probably enough floor space, but no functional study has been done.

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The department shares a common entrance, waiting room and registration/records department with outpatients, but there are no notices to guide casualty patients until they are inside the waiting hall. This space is extremely crowded and quite inadequate for both departments. There is a row of four benches for patients waiting to be called into the casualty rooms, which consist of: a dressing station, divided by a wall partition with a screened examination-couch on one side and space for five chairs for patients' dressings on the other. There are no cubicles as such for any privacy; only two screens appeared to be available. The next room is the consulting room which leads into what is called the 'suture room' but which, as it affords the only privacy in the department is more often than not used for the undressing and examination of patients.

Beyond the ambulance entrance and porch, which separates the outpatients and casualty departments from the rest of the hospital is the X-ray department (which otherwise in terms of distance is reasonably accessible) and the minor operations theatre; this dichotomy complicates the organization of nursing staff, who may have to spend long periods outside the casualty rooms when attending post-operative recovery patients.

Non-touch technique is not carried out in the department. Septic dressings were seen to be done without the nurse even washing her hands in between. Sister declared that non-touch technique might be all right for the wards, but it was difficult to keep up in the tempo of casualty and outpatients, apart from the supply of materials and equipment for such procedures which would be difficult to get. However, although the instruments and equipment were of poor quality, this department was the first place seen where the sister and nurses were wearing masks while doing patients' dressings. They say they have no sepsis problem in the hospital.

The rooms have high ceilings, are cheerfully painted and, with tall open windows, the ventilation is above the average seen in the survey. Walls and ceilings

are washed down completely once a year; certainly they looked clean and bright. There is no shortage of domestic staff.

On the wall beside the registration desk there is a notice which reads (in more polite terms than at one other hospital visited):

> 'The attention of all patients is drawn to the fact that the Casualty Department is intended for the reception and treatment of Accidents and Emergencies and also for patients who have been referred to the Department by their own doctor WITH AN ACCOMPANYING LETTER.'

* * * *

The accommodation for casualty is poor and virtually consists of a partitioned corridor with designated rooms. The casualty enquiry/reception office, just outside the department, deals with the registration of all admissions to the hospital, except maternity cases. The waiting room for casualty walking patients is the corridor, lined on one side with hard benches. At the entrance to this corridor there is a waiting room for ambulance cases with four curtained cubicles, an examination room for stretcher cases with two cubicles and a single cubicle for private examinations, mainly used for gynæcological cases. These cubicles can be used when required as recovery rooms, although they are some distance from where any minor operations are carried out.

The rest of the department consists of a suite in the centre of which is the examination/reception office, about 16 ft. by 10 ft., where the casualty officer's desk and sister's desk are placed back to back. Under the casualty officer's desk there is an open bucket for disposal of dirty and infected dressings. There is a viewing screen on the desk. Sister's table is the only available space on which to keep all the books, casualty cards in use, forms, nurses' roster files, etc.

From this room patients are separated into the male and female dressing stations (although at times a certain amount of juggling is necessary to preserve this separation and privacy). There is no attempt to segregate 'clean' from 'dirty' cases, or keep the children apart from adults, and separation is by sex and not by sepsis.

At one side of the examination office is a sterilizing room, also used as a store and patients' dressing room. Through this room is the female dressing unit with a screen round a couch for minor operations. However, this couch is so high that only a tall casualty officer can do the work properly and comfortably. At one side of the room, underneath the unscreened window an old operating table serves as a stand for instruments as there is nowhere else to lay these up, but when the department is very crowded, it is also used for patients waiting for minor operations and dressings, the trays of instruments then having to be balanced on the basin in the corner of the room.

On the other side of the examination office the male dressing unit is really a general utility room, perhaps not as cramped as the female unit but it also has to accommodate the department's filing cabinet and a large store cupboard.

There is no syringe service in the hospital and the syringes are boiled up in the department, each dressing room having its own sterilizer. All the equipment is old-fashioned and of poor quality.

The whole aspect of the department is grimy, cramped, unorganized and uncared for. Some of the rooms were painted about a year ago, but these walls are now dirty again. Because of the shortage of domestic staff the nurses have had to wash the walls and a high-tide mark shows clearly the furthest point which they have been able to reach.

The small theatre in the main hospital is available for major casualty operations on the mornings of Mondays, Wednesdays and Fridays.

Eighteen male and eighteen female 'transit beds' in the main wards can be used by the casualty officer until 8 p.m. after which time they must be evacuated for night emergency admissions so that the other wards are not disturbed.

* * * *

The present accommodation for the casualty department is inadequate and the whole service is forced to work under difficult conditions allowing for no flexibility. The major defects are: a very small theatre in which all the minor casualty operations are carried out and which can only be ventilated by leaving the casement windows open; there is no recovery ward. No room is provided specifically for shock treatment; all the treatment rooms in the department have in fact multi-purposes as occasion demands. The 'accident' beds for all casualty patients, except those with abdominal wounds, are in the orthopædic wards.

Lack of accommodation generally has led to the department being separated by over 100 yards from the dressing station, via the main hall of the hospital and a very long, sloping corridor which carries a lot of traffic to and from various departments. There is therefore a potential risk of breakdown in communication and lack of continuous supervision by the casualty officer over the dressing station, not to mention the risk of cross infection. Contact is only made each evening when the sister in charge of the dressing station comes down to the casualty department with record cards; she confirmed that there was no difficulty, however, in getting the casualty officer over to the unit at any time to discuss a case. The dressing station is also used for chronic skins, varicose ulcers, breast abscesses. There is no Staph. monitoring or other sepsis evaluation of risk.

The same conditions of separation apply to the siting of the main X-ray unit, used by the casualty department, but again, in spite of this physical gulf between the departments, remarkably good and close relations seem to have been built up.

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To quote from a letter from the secretary of the group:

> 'The casualty department . . . is not a department of the hospital in which we have any pride. It is in our view inadequately housed, although by local efforts within our powers slight improvements have been made recently.'

The department shares a common entrance and waiting room with out-patients although there is a separate reception office for casualties. There is an open admission space in the casualty department itself, with no room for privacy during examination. There are two curtained cubicles and two small partitioned cubicles. The theatre is tiny (15 ft. by 9 ft.), separated from the casualty treatment room by a linen curtain 8 in. from the floor. The old theatre across the waiting hall is used for casualty dressings and still has in it a scialytic lamp in place, for use in case of a major disaster with multiple casualties. There is no proper recovery ward.

The equipment in the department is very poor and archaic. Although the hospital claims to have an excellent nursing school, one of the team saw a post-operative dressing being done and could not think of a worse technique under less aseptic conditions. The matron is aware that non-touch technique is not routine in casualty and puts this down to pressure of work. The routine of 'ethyl chloride spray as a local for incising paronychia, followed by mag. sulph. dressing and a penicillin injection, the patient to return the next day' reflects inadequacies of three decades ago.

Even allowing for the limits of available hospital expenditure the department has not apparently been improved in any way.

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The casualty department, which faces the outpatient department across the narrow ambulance entrance is (considering the 'dispensary' aspect with which the service has to cope) well designed from the functional point of view, although at busy periods it must have certain traffic problems. There is a separate entrance for walking cases.

The rooms are light, comparatively spacious, and operationally good from the point of view of supervision, although the dressing station is not well placed for staff movements. In case of major disasters each cubicle can be curtained into two, all are fitted for drip stands, and, if the structural plans allowed it, the staff would press more strongly for piped oxygen. There is no attempt at segregation of clean and dirty cases, but there is what the staff like to call a 'septic cubicle' with sound-proof walls and ceiling and a separate exit into the courtyard. There is also a special cubicle for routine injections, known as the 'penicillin room'.

The theatre arrangements leave much to be desired, but the disadvantages are recognized by the staff; an attempt has been made, not always successfully, to separate operating lists for infected cases. The two tilting trolleys for anæsthetics, with locking wheels, are good, but it was disappointing not to find any other examples of gadgetry in this department. The resuscitation room, however, is very well equipped.

There is ample waiting space, if required, and one of the small offices along the corridor, through lack of use by the casualty department, has been taken over as a store for surgical appliances.

Once there were six observation beds for casualty cases in the ward above the department, but these were taken over for chest cases some time ago. Thirty-five beds in the orthopædic ward are designated for fractures, otherwise patients from the department are admitted through the appropriate registrar, and the number of beds occupied by such referrals from casualty apparently rarely falls below fifty.

The facilities for the preparation of instruments (which on the whole are above the average seen in the survey) can be described as 'soup kitchen arrangements'. Their storage system is open to suspicion and the work here cannot be easily supervised. Non-touch technique is routine, in fact it is doubtful if the nurses themselves know of any other method. Yet there is no organized attempt at monitoring or sepsis control. Although the pathologist stated that the whole hospital was becoming increasingly septic, he complained to the team that routine work has so overloaded his department that there is simply no time for research or training.

The department is comparatively well accommodated, equipped and staffed, but although the senior staff are fully aware of the sepsis problem, their attitude towards any control in casualty can be summed up in the words of the pathologist, 'Does it matter? The hospital air is so polluted anyway, I doubt whether casualty warrants any special expenditure.' The team does not go so far as to describe this department as isolated, but in spite of all the facilities there is a veil of disinterest between casualty and the rest of the hospital.

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Even considering the war-time conditions under which the adaptations from an open ward to a casualty department were made, and without any regard to functional planning, this department is one of the dirtiest and most ill-kempt of

those seen. A 'high-tide' mark 6½ ft. up on the walls is allowed to remain, the maintenance difficulties being blamed for the ceilings and upper walls not being washed down. No one seems to have made any serious efforts to cope with the problem.

There is no attempt at organizing the traffic flow and far too much movement is involved for essential services. The original intention to have a separate entrance at the opposite end of the ward was abandoned almost immediately because of the danger to patients from passing cars and ambulances; thus the waiting space is at the farthest possible point from the reception and registration office. The old Board of Guardians furniture—pew-like benches—stands on bare, unpolished boards. One side of the waiting space is reserved for new patients, the other for reattendances, mainly for dressings. The present gas sterilizer is a good 20 yards from the 'supply station' in the centre of the ward, where the trolleys are laid up, the 'new' electric sterilizer having been away for repair for some months. The department has its own emergency lighting system, in that the old gas-lights—perfect dust traps—remain hanging from the ceiling beside the electric fittings. Surprisingly, the equipment in the department is of quite a high standard.

Patients are asked to take their own cards from the dressing station, or examination cubicles, when they leave, and to place them in a kind of post-box which hangs on the side of the registration office, for collection and filing by the clerks.

There is a notice, displayed in the waiting space and on the wall of the registration office, which reads:

> 'The function of this department is to treat accident cases and acute emergencies. All other patients will be expected to produce a note or a letter from a General Practitioner. Failure to do so will normally result in such patients being advised to consult their General Practitioner.'

Such 'advice', however, is given only after the casualty officer has examined the patient and, in practice, has taken the case so far that to send the patient away to be treated by his own doctor would clearly be a waste of further time. In fact this 'barrier notice' against casual attendance is a façade.

Although the nursing staff were seen to be wearing masks, the trolleys, which are said to be changed after every dressing, are not laid up for non-touch technique, which could hardly be expected to exist in this department. Patients were seen wandering through the room with uncovered wounds; there was copious use of mag. sulph. dressings.

There is no recovery room. They are intending—at some future date—to refurnish the present office/spare consulting room, also used as the theatre's store, as a resuscitation unit.

The theatre was adapted in 1950 from the old ward kitchen and is tiled to the ceiling, with terrazzo floor laid on wood (now beginning to crack again after one replacement). The theatre is used for every kind of procedure and by any of the medical staff, also for blood donors.

Admissions are registered but not examined in the department by the casualty officer. These patients are asked to arrive by 10 a.m. The house physicians, on loan from a teaching hospital, and possibly a little anxious to establish their reputation for care, are called down to make a thorough investigation, and this is the main cause for delay—at one time as much as six hours, when the H.P.s were busy in the wards, and which has resulted in the new regulation by the management committee that such cases are not to be retained for longer than one hour in casualty.

The casualty department is another example of a department with the double function of a first-aid post and admitting room. Probably more interesting cases are passing through it than the other two regional hospitals, if only due to the fact that the hospital has a closer connection with a teaching hospital than the others, but these cases are not for the attention of the casualty officer. This department is also used to a greater extent than the others by the better level of general practitioners for a second, short opinion, although evidence that there is any real contact between them and the hospital is slight. Yet, of the non-teaching hospitals, this comes the nearest to being a Cinderella. No pride is taken in its appearance and little interest in the casualty officer's work.

There are plans in the air for fairly extensive internal alterations within the hospital generally, but they mainly involve grouping the surgical wards and their ancillaries nearer to the new theatre suite. There is also to be a new centralized kitchen and dining halls, but in order to achieve this the first new building will be the records office, to be sited between the casualty and out-patient wards. This will have no effect on the casualty department except possibly to block even further the light which comes into its dreary rooms.

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The department is well sited within the hospital and notices to patients are clear. It was built as a casualty department and admission unit in 1934 and, for this period, is well designed and its aspect is spick and span, astonishingly clean for this area. The departmental sister is a fanatic about cleanliness and, without waiting to do battle over maintenance allocations, gets her staff, nurses and orderlies alike, to wash down the walls at least once a year. The colour scheme is pleasant and there is a variety of indoor plants in the waiting rooms and corridor.

The department is divided into male and female sections, each having three cubicles, their own waiting space and a bathroom. This is a unique feature in the casualty departments seen and a survival of the old Board of Guardians' rule that all patients coming into the hospital, whether admissions or casualties, must be deloused and disinfected. Another feature is the 'left luggage safe' to hold the personal property of patients who are brought in unconscious. The minor operating theatre at the end of the department is used for every kind of procedure, including routine injections, as space is limited in the dressing station. There are no observation beds allocated for casualty and no recovery room, but admission at this over-bedded hospital is easy, even encouraged. At the entrance of the department an office, which used to be the sub-almoner's room, is now occupied by a full-time casualty clerk because they have found it impossible to fill this extra almoner's appointment.

The standard of instruments and equipment generally is as good as seen anywhere else on the survey. As the team visited the hospital during a slack period in the afternoon, there was no opportunity to see if non-touch technique was being used; certainly the cleanliness of this department did not give the impression that there would be an acute sepsis problem.

Except for children, who are examined by the casualty officer as a precaution against infectious diseases, all surgical admissions are merely registered in the department before going straight to the wards. The house physicians are called in to examine medical cases and as these are often delayed in casualty, the staff complain that their waiting space is inadequate.

This clean and friendly department is a well-integrated part of the hospital. It is the newest building, well supplied with instruments and equipment and adequately staffed on the nursing side, of which the hospital is proud. The cheerful impression it gives, especially when compared with the other hospital

in the group, goes far to obscure the fact that functionally it is just another admitting room/first-aid station.

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The department has its own separate entrance, which in spite of the many notice boards bearing the sign 'Casualty', is very difficult to find. The accommodation is on the ground floor and its main feature is the 'Mason-Dixon' line which divides the department strictly into male and female receiving wards, each with its own entrance and thereafter complete duplication of services. The female side is larger with six examination cubicles, the male side having only three (ironically the male ward has been cut down to afford extra space for the ante-natal clinic on the other side of the wall!). This rigid segregation dates back to the Board of Guardian times when, in such a rough neighbourhood it was felt necessary to protect the women from the drunks and tough characters. Judging from the amount of injuries caused by fights and alcohol seen in the sample of case notes, it appears that the seamier side of life in the area still exists.

The accommodation itself is bright and airy and, for this particular area, comparatively clean. There is no minor operating theatre in the department, but the main theatre suite is close by where minor lists are done in the afternoons in the smaller of the two theatres. The responsibility of the casualty officers is in any event so limited as to make this arrangement quite workable. Dressings and sutures are done in the cubicles.

The equipment is of a very poor standard, mainly discards from the main theatre and also very scarce. For instance 9 in. forceps are in routine use and they are kept in a bowl of spirit, being boiled up between use in a kind of fish kettle over a gas stove. Nothing could be said to be properly sterile. At least, however, the high ceilings and reasonable ventilation may dilute the polluted air in the department.

The hospital is entirely unconscious of any sepsis problem so non-touch technique would be quite out of context in this setting—if, in fact there is anything one could describe here as a 'technique'.

There are no casualty observation beds in the hospital.

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Generally, the accommodation for the casualty department is light, airy and cheerful. The entrance for walking patients, registration and records office, and waiting room is shared with the outpatient department. The waiting room is comparatively large, the outpatient clinics, almoner's office and dispensary open out of it, as well as the stretcher bay leading to the casualty department.

A special feature in the centre of the waiting room is the receptionist's desk. The receptionist holds a special appointment to outpatients and casualty made four years ago; her function is to keep a motherly eye on the waiting queues, see the patients are booked in properly and observe the regulations, for instance preventing patients going to the canteen before minor operations. Being conscious of the possible abuses of the ambulance service, she ensures that patients are not held up too long when they have buses to catch, and generally in her own words, acts as 'spokesman for the welfare of the patients'. After some initial difficulties with the staff her appointment has now come to be generally welcomed and, depending as it does on the full co-operation of the staff, completely accepted, even by the consultants.

The separate ambulance entrance to casualty is unpopular with the staff, for its swing doors cause a constant draught and make the whole department

uncomfortably cold in winter, to say nothing of the dust which blows in from the ramp outside. Patients waiting for X-rays and dressings also use this bay.

Compared with other accommodation seen, this department is very adequate for the size of the hospital. There is a spacious theatre, with its own sterilizing room, containing both the autoclave and sluice. This theatre used to be the main theatre for the hospital until the 1939 extension. Officially there are three weekly morning anæsthetic sessions, but so little minor surgery is in fact done that it has become more of a thoroughfare, and the anæsthetic room is used mainly for urine-testing for the outpatient diabetic clinic.

The equipment in the department is only average. The traffic flow seems reasonable. Non-touch technique is unknown; the staff declare they have no sepsis problem. There is no attempt to separate clean and dirty cases. There is no separate fracture clinic, the work being run in conjunction with the three weekly orthopædic clinics.

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The entrance to the department is shared with outpatients and ambulance admissions. All entrances to the hospital give on to the prevailing winds. The department itself is centrally placed in the hospital and, in view of the space available and the small numbers served, the arrangement for the circulation of patients and staff is quite adequate. Since the department is staffed jointly with outpatients, on arrival the patients ring a bell outside the casualty rooms to call the staff over from the other department. The two small casualty rooms leading one off the other, each with a bed, are used for examinations and minor dressings as required, although the second room is also the office for the department. In the first room the ancient gas sterilizer could be a source of danger, otherwise the equipment and instruments are of an average standard. The rooms themselves are bright and airy, easy to keep clean since they contain only the bare necessities for their function.

The common registration/records office is across the corridor between the casualty and outpatient departments and although small is adequate for this size of hospital. The waiting accommodation, however, is poor; a tiny, badly lit, interior room, the only attempt at brightening it up is a fish tank which merely seems to reflect its general gloom.

Minor operations and simple reductions of fractures are carried out in the outpatients treatment room, where the facilities are somewhat primitive—for instance, the anæsthetic equipment is foot-operated. This dual-purpose room, when emergency treatment of casualty patients coincides with the morning outpatient clinic, can cause a bottle-neck, but otherwise there is little or no waiting time involved for any patient.

A happy custom has grown up in the hospital through encouraging the junior staff to invent at least one gadget for the casualty department during their year's tenure of office. Former S.H.O.'s have produced in this way an ingenious little collapsible table which can be attached to a chair or bed-rail for minor hand operations, and a simple leg-stand for dressings.

Every patient is seen by the S.H.O., the consultant general surgeon or a G.P. on call. There is a minor operating session at 11 a.m., after the ward rounds. Once a week a consultant orthopædic surgeon comes over from the main area hospital to hold the fracture clinic.

Because of its central position and the small size of the hospital, there is no pressing need for a recovery room or observation beds; one of the cubicles in the outpatient department is used for the one and a surgical bed in one of the main wards can be made available for the other.

There is a carefree and happy atmosphere throughout the department, so 'refinements' such as non-touch technique are not used. The group pathologist pays a weekly visit, but the staff are not sepsis conscious, which is perhaps understandable, though not excusable, in this hospital which generally has a cheerful, clean appearance and where there is no obvious pressure turnover.

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Among the different gates and wings of the hospital (opened at the beginning of this century) which now has nearly 500 beds, the casualty department is difficult to find. The new building, which cost £30,000 out of free moneys, stands on the site of the previous casualty department which consisted of 'a shack and a shed'. The plan is of a 1930 vintage, drawn up without proper consultation with those who were to run the unit or who had experience of working in such departments. Modern functional planning plays little part in its design and it would have been better built as its mirror image, especially with regard to the through traffic to the X-ray department. It was apparently only through pressure from the consultant who was to take charge of the service that the new building was connected at all to the main hospital, and there is a glassed-in corridor which leads round one of the hospital's many small courtyards towards the administrative block and the kitchen and dining wing.

The gravest mistake of all has been to allow the building insufficient foundations to carry any further storeys—this on the only vacant plot of land in the hospital grounds.

Yet within such limitations, the department is spacious, light and painted in pleasant colours, and generally easy to keep clean. Unfortunately in some of the rooms—not only in the theatre and others where steam sterilizers are in use but in the casualty officer's room and the bureau office—the paint is flaking off the ceilings, probably due to leaks in the flat roof.

There is ample waiting space for walking patients, both in the general waiting-room and the lobby to the X-ray department. The small entrance hall contains a public telephone for the use of patients. The canteen at the back of the waiting-hall may be good for patients' morale, but in the team's view provides too great a temptation. The separate ambulance entrance is a good feature with efficient arrangements for unloading and well-equipped stretcher rooms; this allows for the complete segregation of serious accident cases from the rest of the patients and children. A fault in design, probably due to lack of consultation, provides no physical means of separating the clean and dirty cases, but the staff are trying to overcome this through organization.

The casualty, or minor operations, theatre is of a late 1930 design, incorporating sluice, scrub up and sterilizing in the same room. The flooring is terrazzo, but of modern pattern, the squares being small enough to prevent the usual cracking. The anæsthetic room is also used for septic surgery. The sluice room, opposite the plaster room, is used only for the recovery wards. There is no resuscitation unit, the theatre being used when required.

There are three well furnished recovery rooms, with a bed in each, one with an extra cot. These are used for postoperative recoveries; fractures arriving too late at night to be transferred to the orthopædic hospital, one mile away; and 24-hour observation (except in the case of head injuries, all of which must be admitted immediately to the general wards). In addition these small rooms are very useful for patients who have come from the periphery of the catchment area and, though not seriously ill, are not fit to travel the long distance home when their treatment is completed. The patients in these wards are looked after by the nurses on duty in casualty; extra nurses can be brought in from the wards but

this is rarely necessary. Sister felt that this prospect of having some bedside nursing to do was one of the chief attractions of this department. Although the casualty officers said there was never any difficulty about bringing meals over from the main kitchens, Sister would very much like a small kitchen in the department, not only for these wards and the staff, but also because the canteen closed down at 7.0 p.m. and there was no other means of obtaining hot drinks for patients during the late evening and night.

For a new department the engineering services are disappointingly similar to those of the older departments seen. It is difficult to unravel the principle of the ventilating system. There seem to be plenty of extractor fans in the theatre and the treatment clinic, but the staff complained that they had had to work in intolerable conditions this summer. However, the plaster room, which is very spacious (and also used for stomach wash-outs) is well ventilated. There are no plaster orderlies on the staff, all this work being done by the casualty officers and nursing staff.

Since the casualty department is also the admission channel for the hospital, the 'bureau room' opposite the ambulance entrance has been included in the department, not that they have need of the space it takes up, but it causes a certain amount of cross traffic during the busy period in the mornings, while the 'cold-list' patients are being registered and examined by the house officers in this room.

The equipment is of a comparatively high standard and there is no difficulty about replacements. Discards from other departments do not find their way to casualty. The steam sterilizers are in good condition and obviously well maintained. There is a central syringe service in the hospital, and plans for central sterile supply.

Although non-touch technique was not seen to be used, the staff here are sepsis conscious and make practical efforts to segregate patients with dirty wounds. Patients for clean dressings are asked to arrive before 10.0 a.m. in the mornings. Their appointment card system is coded 'A' for clean and 'B' for septic dressings; the number of the casualty officer whom they are to see is the next figure, the last being the number of days before reattendance. The block appointment system of six patients per ¼ hour appears to work very well. All septic wounds are treated in the anæsthetic room, only the clean cases going to the theatre itself.

At the far end of the casualty department is its own casualty X-ray unit, which shares one room with the main X-ray department of the hospital, otherwise its services are exclusively for patients from casualty with full 24-hour radiographer cover. It has its own pleasant waiting lobby with comfortable tub chairs and gay curtains. All the machines and equipment were new when the department opened.

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The present casualty department was built in 1957 on the same site as the previous department, which consisted of a ward, a corridor and a few ancillary rooms. The new plans are based, so far as the shape of the available site would allow, on the proper traffic flow of patients and work of the staff. The entrance to the department is at the front of the hospital, about 20 yards from the main entrance. The drive-in for ambulances is not convenient for unloading, difficult for ambulances to turn in and awkward for staff and stretchers.

The ambulance room is at the entrance to the department and is used for the reception of stretcher cases only. It is estimated that only 15% of the cases coming to casualty are taken into this room and after examination, assessment and emergency treatment, they are admitted, or transferred to

another hospital, and do not join the main stream for casualty organization. There are two curtained cubicles. Resuscitation can be carried out in here. Special equipment is stored in cupboards with glass fronts, or doors painted in different colours according to the use of their contents. This room is also used for the reception of emergency admissions, examined here by the house physicians, or as a holding post for patients being re-routed to the orthopædic accident hospital less than two miles away.

The rest of the lay-out inside the department is as far as possible based on an 'assembly line' principle for the 85% walking patients who are passed through, from the waiting room, with its own records office, the casualty officer's consulting room, at the angle of the department, and each according to the needs of their treatment, to the bandage room for clean dressings, with its ancillary stitch room or the septic dressings room and the theatre suite. The corridor runs the length of the department and all the units open on to it, so none have to be used as passage ways, and cases can be kept separate.

Against the consultant's wishes a canteen was placed in the waiting room. Patients are called into the casualty officer's room, after a certain amount of preparatory work in the waiting room; for example, old dressings are snipped ready by a 'major domo' porter, so that no time is lost once the patient is at the casualty officer's table. After consultation or examination a dry dressing is applied and, theoretically, patients are then filtered to the bandage room, if they are 'clean', or back to the waiting room to be called in to the septic dressing room, when the '9 o'clock rush hour' is over in the bandage room.

The waiting room also accommodates the overflow from the E.N.T. outpatient clinics, occasional patients waiting for X-rays and, for short periods, 'cold list' admissions waiting to be registered, but not examined in the department.

During the team's visit at a peak period, the central dressing station in the bandage room was very overcrowded. Three nurses, supervised at intervals by the second sister, were applying clean dressings at a formica topped small table, too low for anyone's comfort, in the worst lit part of the room. The table was wiped clean after about six patients had passed. Treatment was carried out according to instructions given through a system of coloured and lettered discs, which the patients brought with them. The casualty officer was connected to this room by a single loudspeaker, which was used when the white 'W' ('Query Doctor') disc was produced, and the nurses used this for special instructions. The other discs represented in all about 15 combinations for different procedures, for example:

Green—dry dressing	Black—dry dressing with pressure bandage
Brown—Splint and sling	Blue—Strap and bandage
Yellow—Penicillin	Red—Strap and crepe

The corner of this room is rather a grim sight, with two sinks for washing up, a roller towel used by both nurses and patients, and two waste bins. The steam sterilizers have ruined the paintwork overhead and the walls, in contrast to the rest of the department, are dirty.

The equipment here, and in fact throughout the department, is well above average and specially suitable for casualty work. All the trolleys are tilting with locking wheels and fitted for oxygen cylinders. Unfortunately there is little evidence of any ingenuity or inventiveness in the department, merely routine stock-in-trade equipment, without gadgetry.

The stitch room, next to the bandage room, is sometimes used as an overflow for the morning dressing session. Local anæsthetics are said to be rarely used.

After each session the treatment rooms are cleaned down and this is made easier as all cupboards, etc., are mounted on wheels so they can be shifted without difficulty.

In the septic dressings room, to which the nursing team move after the session on clean dressings at about 10.30 each morning, the tempo is slower. Non-touch technique which may have tended to become slipshod in the bandage room is considerably stricter and there is more opportunity for supervision. There is greater space in this unit, with three cubicles and couches, a separate sterilizing station and instruments are laid up individually for each case. All the staff in here are gloved and masked. Towards the end of each morning and in the afternoons the dressing teams take on as many as possible of the ward burns' dressings and also such cases as leg ulcers and varicose veins from the outpatient department. This is a unique function for a casualty department.

Although the rule is that septic cases should not go into the bandage room, there are certain exceptions, probably on humanitarian grounds, for example a crippled neuropathic diabetic with a carbuncle was allowed to sit and wait in the bandage room rather than be wheeled back through the waiting room and from there to the septic clinic. Although large dressings, for example breast abscesses, are supposed to go to the septic clinic, where the cubicles have deliberately been kept small to avoid suppurating wounds spreading infection, they are in fact normally treated in the cubicles of the bandage room, because it is more convenient for the nurses to dress them in here before the team changes over to the septic clinic at 10.30 a.m.

The consultant considers the infection problems of casualty are quite different from those on the wards, and on a lower plane. Although a real attempt has been made to keep the 'clean' and 'dirty' cases separate, both by times of appointments and separate rooms, the system becomes rather diffuse on the clinical side, and falls away when the junior nurses are working under pressure. Moreover, he believes that some septic wounds, for example slough excision cases, particularly pulp whitlow, when left for four days after operation can then be redressed in the 'clean' treatment room. The routine is for antibiotics to be given in sub-therapeutic doses—3/100,000 penicillin is the standard. Penicillin and atropin is given as pre-operative cover.

It is possible that the bacteriology and epidemiology of cross infection are not fully appreciated in this department—there are many loopholes and aseptic conditions are far from being achieved. Yet the sepsis problem is recognized and some practical measures have been taken, and on the whole are seen to be working, which is not the case in most of the other hospitals visited on the survey. The drawbacks are recognized and the staff are aware that the standards set in this respect too often become swamped by overcrowding and pressure of work.

The recovery room in the theatre suite is well fitted and equipped with four beds, all with their heads to the centre of the room, easily accessible to the anæsthetist. There are plugs for mobile suckers for each bed. Between this room and the theatre the patients have their own changing room with two cubicles.

The sliding doors inside the suite are a good feature, on upper suspension. It is unfortunate that the staff have been told that because of the sloping corridor floor they cannot have sliding doors to the entrance of the suite, across which are hung drab pink curtains of heavy linen.

The theatre is lit by fluorescent strip lighting of low intensity. The walls are dulled by steam grease from the sterilizers which seem to be dotted everywhere in this department. The sinks for scrubbing up are in the theatre itself. There are two poorly lit and badly painted ancillary rooms, one for the sterilizer and in-

strument cleaning, the other as a sluice and store. The principle of the ventilation system is difficult to unravel. The extractor fans when not actually in use give off a back pressure; the vent to one of them is covered with a blanket and the air (and conversation) comes up from the domestics' changing room below, through the basement to an outlet on the exterior wall of the hospital. The thermostat control does not work properly.

There are daily minor operating sessions, starting at 11.30 a.m. The casualty department has organized its own independent anæsthetic cover, with three G.P.s giving anæsthetics on two mornings each a week, as clinical assistants; the consultant is very satisfied with their service. Fluothane is given as a routine, although none of the G.P.s have the D.A. or have been given any special instruction in its use.

Swabs are taken once a year—100 every July, but only from the theatre dressings, not from the treatment rooms. Nasal swabs are not taken.

There are no observation beds allocated to the casualty department; when required the consultant in charge makes beds available in his own surgical wards.

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The medical staff who were to be responsible for running the new accident centre were allowed to play very little part in its general design and detailed lay-out. It was said that their opinions were invited at meetings arranged inconveniently at short notice; plans and amendments were circulated with scarcely time for detailed study and contractions in dimensions, alterations of the position of units, etc., too often slipped by unnoticed by the consultant staff, who were not organized or skilful enough to cope with this professional situation.

The main entrance and foyer to the centre, though no part of the casualty service, deserves special mention to show the contrast between the architect's conception and the actual working conditions of the casualty department with which the medical and nursing staff have to cope.

The foyer extends the whole three-storied height of the building and must amount to about 32,000 cubic feet. It is palatial and exotic with hardwood panelling, expensive contemporary wallpaper and bronze-balustraded staircase. Empty troughs for potted plants line the carpeted lobby. The light-fittings, furnishings and patients' telephone booth would equal those in a 5-star modern hotel. The visitors' waiting room is equally lavishly furnished. Yet, because there is no spare porter/janitor available to man the reception desk, the front door remains permanently locked and visitors and staff all come in by the door to the side forecourt behind the main ward wing, the public being attracted inside to use the lavatories. Furthermore, the main access to the casualty department from the front entrance runs right through the X-ray department. For this reason the main entrance is likely to remain closed.

The architectural note describes the whole plan of the centre as 'resembling that of an aeroplane with a rather short fuselage ... the single-storied outpatient department forms the tailplane.' This is ironically true of the position of the casualty department.

The entrance for stretcher casualties is under a covered terrace flanking the interior corridor of the X-ray department. The canopy has been built too short to cover the space over the yard where ambulances back in and unload. The reception/registration office has two windows to cope with both stretcher and ambulant patients who enter round the back of the casualty department. For

stretcher cases and trolleys the corridor inside is too narrow to give straight access except into the casualty officer's office; to get into the resuscitation, examination rooms and theatres in this section of the department, a certain amount of shunting is needed before the trolleys can be wheeled through the doors—in fact micro-manipulation is required everywhere because of the narrow ratio of the width of the doors to corridors.

The department is divided into three functional suites; resuscitation and theatres, consulting and reception and treatment and dressing.

Resuscitation and Theatres

The shock room is fitted with first-class equipment for every conceivable emergency and includes a wall-mounted blood pressure gauge, piped oxygen and suction, X-ray machine sufficiently large for any casualty, including spinal injuries, a tilting trolley fitted for a transfusion stand, a hand wash-basin and a poison cupboard at eye level. But once the patient and nurse are inside this room there is no room left for the casualty officer, such was the pruning of the dimensions in the plan, which went undetected by the medical staff until it was too late, and the room ended up by being only a third of the necessary size. In fact it has only once been used since the centre was opened; resuscitation is now carried out in the cubicles of the examination room next door.

The plaster room is adequate and fitted with a triple rail for drying off mackintoshes—one of the very few good features seen in the department. The original waste-pipe contraption in here failed to work and has been replaced by a locally made simple plaster trap. The laundry chute was not used for the first few months because of shortage of staff; now that there are sufficient porters to receive dirty linen in the basement, the mechanism of the chute has broken down.

The septic theatre is minute, with tiny ancillary rooms to match its size. The main theatre is more spacious, with a full size Hanalux lighting system. The air conditioning system does not work properly and the door has had to have a stop made to prevent it staying open under positive pressure too low for that of the extractor fans. As in the theatres of the rest of the centre there is a dual heating system. There are two doors (one kept locked to provide extra space) to the sluice rooms.

There is no recovery room in the department, the examination cubicles being used for post-operative patients.

In this suite originally all the doors were glass-panelled but hardboard covers with sliding eye-holes have now been fixed to afford privacy. The hospital carpenter has also provided a fixed X-ray stand in the casualty officer's room as the stream-lined arrangements for the delivery of films too often spirited them away before they were read.

Reception and Consulting

The main waiting room is furnished and papered in contemporary style and very comfortable. In spite of protests from the medical staff, a canteen was provided. Smoking is allowed. The medical staff are beginning to realize this room is too attractive, especially as a resting post for tramps at night. The corridor outside has become a marshalling yard for stretchers and invalid chairs, expensively covered in calf-leather, so wide that they take up a third of the width of the corridor and have to be moved to allow access to the patients' and staff lavatories.

Each consulting suite on either side of the corridor has its own waiting room,

apparently one of the easiest places in the rabbit-warren in which to lose patients. The consulting rooms are fairly small box-like compartments more suited to an outpatient consultation than a swift casualty examination, and the casualty officers complain that they are shut off here from the stream of work and have no chance to supervise treatment and dressings. Patients carry their own records from unit to unit.

Treatment and Dressing

This suite is not air-conditioned. There are two sets of four cubicles and one dressing unit for stretcher cases, also with four cubicles, with couches and, again, its own waiting bay. There are nine separate Slater sterilizers in the department, with steam controlled gear, but during the visit those in the dressing units had either broken down or were boiling merrily away and so creating intolerable conditions. The effect of the constant clouds of steam on paint and woodwork (not to mention tempers) was already having its effect after six months. There are no storage arrangements for drums which are stored on the floor at the end of the dressing units. The nurses were gloved and masked here; sets of instruments were laid up for 4–5 dressings under sterile towels. 'Partial-touch' technique was seen to be used, but supervision of junior staff is made very difficult by the many partitions and the steamy atmosphere.

As would be expected here, the equipment and instruments, apart from the faulty sterilizers, are brand new and of good quality.

The routine work is organized to separate clean and dirty cases on a time-table as follows:

Clean dressings . . .	9.0–10.00 a.m.
Soft Tissue injuries . .	10.00–10.30
Septic Dressings . .	10.30–11.30
Theatre	11.30

The senior casualty officer begins his review clinic at 10.30 every morning.

Seventy-five per cent. of the surgery is done under local anæsthetic, 25% under general. Daily anæsthetic sessions are shared between three general practitioner clinical assistants. Fluothane is given as a routine and the G.P.s have been specially instructed by the senior anæsthetist in its use.

The afternoon traffic flow has had to be switched because of the fracture clinics, held in one of the ambulant dressing units. The team did not have the chance to see how the arrangements worked as they paid a morning visit, but it would seem that the corridor and waiting rooms remain very congested throughout the day as a result.

There is an 'over-48 hour bar' against casualty attendance, and if the patient presents himself with an injury sustained two days before, as a rule he is referred to his own doctor, although this regulation is flexible in cases of infected wounds. Medical emergencies are seen and referred back to the G.P. or admitted to the general wards of the hospital. On the whole the medical staff thought the name 'accident centre' was acting as a proper deterrent to trivial cases and no instance of such a case was found in the records.

There are no beds allocated to the casualty department for observation purposes. Originally six beds were designated in the ground floor wards, but these were filled with orthopædic cases as soon as the building was opened and there seems little chance of them being recovered for casualty. On the other hand this is perhaps not as great a drawback as in other hospitals because the policy at the accident centre is 'Treat and discharge, or admit'.

Although the entrance to casualty is at the back of the accident centre, this

department is considered by the medical staff to be the first, reception, stage of the accident service. Physically it is a wasp-waisted unit and of all the departments in the new building it has suffered the most from the architectural squeeze and lack of consultation with those most experienced in the organization and work of casualty. It has been built as a consultative outpatient department with the result that it is difficult to supervise the work yet easy to lose patients between the series of consulting boxes, waiting spaces and dressings cubicles.

It is, however, exceptionally well covered by first-class medical staff who are providing an enlightened accident service in spite of the drawbacks of planning mistakes and faulty engineering services.

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The accommodation was adapted during the war at a time when there was an acute shortage of building materials and labour. No alterations or redecorations have been carried out since nad the whole building needs a thorough refurbishing everywhere, especially as the ochre war-time paint is unrelieved and depressing. Indeed, it must be a shock to overseas visitors to be met by the unkempt dilapidation (including an absent window pane) of the entrance hall and stairways, which do not appear to have been spring-cleaned in the past decade.

Yet this department is practically the only one of any size seen by the team which has been deliberately planned on a functional basis. Within the limitations of the building and the war-time adaptations, the organization for the efficient flow of patients and economy of movement of staff, avoiding wherever possible cross-traffic, has dictated the layout of the accommodation and fixed equipment.

The new patients' entrance used to have a glass canopy over it until it proved to have been built too low to withstand the impact of an R.A.F. ambulance. Railings on either side of the entrance, protect walking patients from where the ambulances drive in and out over a ramp. There is a separate entrance for patients reattending for clinics.

The polished surface of the benches in the waiting hall show how generations of patients have, under the 'total shift' system, slid up, row by row, to the top of the queue. There is inadequate space for a wheelchair and accompanying relative in the dingy registration office, where patients collect their serially numbered folders which hold their various forms and case notes.

The shock room is very well equipped and in a good position, although the hospital staff would like, as one of the priorities, to have a larger shock room with an observation ward alongside. Outside this room there is an excellent apparatus in the form of a cradle for treating severe chest injuries with paradoxical respiration.

There are six cubicles in reception, four with couches, special lights and apparatus for examination purposes, one used as a waiting space for X-rays, and one as a waiting space for the dressing unit. The X-ray department for casualty is adjacent to reception, but there is also a mobile X-ray machine and viewing set in this unit. There are several useful gadgets:—

(*a*) Tubo gauze dispenser with perspex cover mounted on the wall;
(*b*) Leg dressing stool of stainless steel;
(*c*) Dressing trolleys with disposal cans attached (the idea behind these is good, although there may be risk of contamination if the lids are not air-tight);
(*d*) Standing writing desk, with high stool if required;
(*e*) Rinser for syringes soaked in spirit.

All the chairs in reception are slatted iron, easy to keep clean and not as uncomfortable as they look. All patients requiring dressings are booted and gowned, although this is as much to protect the equipment as the patients themselves.

There is a copious supply of sterile tools and equipment, all labelled 'non-touch'. The technique is that of an assembly line; simple minor injuries are each attended by at least three different people in three different cubicles: (1) examination by a doctor; (2) dressing by a nurse; and (3) penicillin injection by a nurse.

There is an efficient X-ray room with two machines next to the reception room. The junior staff write in all the X-ray diagnoses, the team leader vetting these sometime during the tour of duty. The radiologist now does regular sessions in this unit, not to review films but for the standardization of techniques for comparable viewing, and even more sessions are needed for this purpose.

At the end of the reception unit is the photographic room, which is quite unique and most valuable for accident research.

There are two theatres, one for general and one for local anæsthetics, with a sterilizing room in between. There is a 'localized central sterile supply' system here which ensures that a complete set of sterile instruments, covered by a towel, is always ready, however many operations have to be done. There are humidity gauges in the theatres, but no proper humidity control. Access to the surgeon's changing room is only through the theatre.

The comparatively spacious plaster room is beyond the local anæsthetic theatre. Printed labels containing instructions to patients are stuck on to the plasters themselves. There is a good winch on ball bearings for overhead traction. The plaster disposal bins are all on trolleys in covered hatches with openings inside and outside.

Provided it is bacteriologically sound, the design of the reattendance clinic, with its chest-high painted brick partitions, is a good example of planning for economy of movement, resulting in a speedy and efficient put-through, for example in the case of second dressings, the house surgeon sees 140 patients between 9 a.m. and 11 a.m.; in the case of ambulant fractures, the registrar sees 60 patients between 11.30 a.m. and 12.45 p.m. Four nurses work in this clinic, one cleaning, one preparing and laying-up the instruments, and two doing the dressings. There is a 'double-feed' for sterile instruments, each with its own sink and equipment, but there may be a defect in the arrangement of the sterile trays passing over the disposal bins, if the outside door to the hatches is not tightly closed. With a secretary facing him, the casualty officer interviews patients in the centre of the room, seated on a swivel chair from which he can reach the basin; this is not altogether satisfactory, however; the idea is good, but needs more finesse perhaps to encourage the lazier doctors. There is a viewing screen on the desk.

There are three more dressing rooms, one of which is used for dressings to the leg and body, one is used for giving antibiotics, and the third one is used as an overflow and for special Burns Unit dressings three afternoons a week. In addition, there are two consulting rooms for referred cases from daily clinics, and for special follow-ups with certain types of injuries.

The equipment throughout the department is of a high standard, except for the sterilizing drums which are suspect. The hospital is now going over from an inefficient system of syringe servicing (using cellotape caps) to a contract syringe service which uses metal sealed caps.

The Plenum air conditioning plant appears to give a reversed air-flow in the reception room and theatres, but the staff are well aware of this and indeed are continuing a series of studies in cross-infection.

The staff themselves feel that in the original plans for adapting this part of the building they overlooked the provision of:

1. Showers for the remedial gymnasts;
2. Waiting space outside the clinics;
3. Sufficient space for storing linen;
4. Staff rest rooms and lavatories.

Ward G, close to the department, has 26 (16 male and 10 female) 48-hour observation beds, and their estimated turnover is 2–3,000 per annum.

APPENDIX III

EXTRACTS FROM REPORTS BY THE SURVEYING TEAM ON REHABILITATION AND RESETTLEMENT SERVICES IN THE HOSPITALS VISITED

The senior casualty officer and his junior staff have direct access to the physiotherapy department. The initials 'T.P.' (Try Physiotherapy) and 'A.D.T.' constantly recur on the casualty cards as evidence of this department's misuse as a dumping ground by junior staff.

The chief physiotherapist is enterprising and does good work, in spite of the lack of imagination on the part of those referring cases to her. She is especially keen on her weekly class for juvenile schizophrenics. Two classes per week are held for geriatric cases. There is an adequate gymnasium and good exercise programmes have been worked out. The occupational therapy department is mainly diversional but there is a certain amount of domestic resettlement work done, and enterprise and ingenuity have produced some good gadgets and cleverly adapted tools.

The initiative shown by the technical staff of the department is in contrast with the attitude of the medical side towards rehabilitation and resettlement. The department's staff regretted that there was no medical interviewing committee, but there is fairly close contact with the local D.R.O., whom they know by name. The hospital superintendent, however, did not know what the initials 'D.R.O.' stood for.

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The physiotherapy department is small, consisting of two rooms with eight cubicles in one, six in the other. There is only a very distant prospect of a new department being built, although plans for a gymnasium and pool have been prepared for it.

Local transport difficulties make class exercises very difficult to arrange and in any event the department is always short staffed, the tendency being for the physiotherapists, once qualified, to get jobs with the local industrial medical departments. There is no occupational therapy department, although handicrafts are taught on the wards by a part-time visiting occupational therapist.

If anyone could be said to be responsible for this department, it is the hospital secretary, who arranges all the appointments. Junior medical staff can—and do all the time—refer patients direct. Although the senior casualty officer could also do so, most casualty patients come via the outpatient orthopædic clinics.

There is no medical interviewing committee or resettlement clinic; nor is there any contact with the local D.R.O., whose name is unknown to the staff. The three major firms take the initiative entirely in the rehabilitation of their own employees, fitting them into selected or modified work. The interest of their welfare officers in this seems to be very commendable and a fine example of the good relations between management and labour in the steel industry.

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There is a school of physiotherapy at the teaching hospital, with 91 places for students. There are, however, no facilities for a full-scale rehabilitation service in the city. The teaching hospital runs a special course for D.R.O.s, and claims to have an active rehabilitation sub-committee, but in fact there is no real organization or attempt being made to ensure the patients return to work when they are fit.

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The department is small and provides only for physiotherapy as there is no gymnasium. The G.P.s and the casualty officer can refer cases direct and the regional consultant in physical medicine pays visits when required. Visits from an occupational therapist to the wards are arranged from the main hospital which holds a medical interviewing committee, described by the Ministry of Labour as 'reasonably active'.

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The physiotherapy department is small and inadequate, if the claim is true that 100–150 patients pass through each day. A space taken from two cubicles is used as a gymnasium, with ribstalls, etc. Two class exercises are held each week for quadriceps, three a week for asthmatics. Very few cases are referred direct from the casualty department, although the senior casualty officer can do so if he wishes. No junior staff are allowed to refer cases.

The superintendent's post is now vacant; the assistant superintendent of the department attends the orthopædic clinics twice a week in the outpatient department, and the consultant orthopædic surgeon holds a clinic every Saturday morning in the physiotherapy department. These clinics are said to put through an average of 110–120 patients each.

The consultant in charge of casualty supposed that any resettlement work was the almoner's responsibility and this is in fact the case; her contact with the welfare officers of the local firms is always made through the D.R.O.

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All the consultants in orthopædics and general surgery see their patients at regular sessions in the physiotherapy department. This is a very good unit with an adequate gymnasium, which is also used as a waiting room for patients attending the orthopædic clinics three mornings a week, when the full-time gymnast acts as clerk/receptionist. The work of the occupational therapy unit is mainly concerned with handicrafts.

The consultant orthopædic surgeon told the team the medical interviewing committee met regularly and, although he did not know him by name, the local D.R.O. was keen. The department makes occasional use of Egham.

The orthopædic staff have now asked for an extra almoner to work with their department and casualty.

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The hospital staff are aware of the need to get patients back to work as soon as possible; they acknowledge that there are gaps in the rehabilitation service, more particularly a lack of scrutiny and supervision for minor injuries in the casualty department, and at the rehabilitation centre itself.

The services, run by the orthopædic department, include the physiotherapy clinic, occupational therapy department and the rehabilitation centre, both for resident and non-resident patients, eight miles away at a hospital which has 70 beds, a third of which are accident-convalescent. A daily bus from the hospital takes ambulant patients over to the centre which is visited by the senior casualty officer on an average once a week.

The team understood that the question is now being considered of the appointment of a physical medicine consultant, to develop further aspects of rehabilitation, especially those concerning rheumatology and 'daily living', which have so far hardly been touched upon here. Such an appointment would also free the orthopædic surgeons from a good deal of their duties in this department and allow them more time to do clinical research.

The staff are reasonably satisfied with the work of the local D.R.O. They told the team there was no interviewing committee or resettlement clinic, but according to the Ministry of Labour, an M.I.C. has been held at 'reasonably regular intervals.'

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Rehabilitation services are at present non-existent, but a new physiotherapy department is being planned to include occupational therapy and a gymnasium. The medical staff were not familiar with the terms resettlement clinic, M.I.C. or D.R.O., and excused the lack of activity by the hospital service on the grounds that the majority of workers were unskilled! This trend would increase as the Works continued to turn over to more and more automation, and in any event it was said that the two major local firms provided adequate services for the rehabilitation of their own employees.

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The physiotherapy department is relatively small, the responsibility of a physiatrist whose primary interest is in rheumatology, to which the pace of this service is geared. This is understandable perhaps since no fractures are referred to the department to stimulate interest in rehabilitation and resettlement of the injured. There is a strong link with dermatology, but the impact from casualty is very slight. There is a small gymnasium, no pool and no outpatient occupational therapy. Only consultants may refer cases for physiotherapy.

There is no resettlement clinic or medical interviewing committee. The nearest rehabilitation centre, seven miles away, is run by the largest local employer, but there is no link between the hospital and this service, nor with any other of the local industries with regard to resettlement of injured employees.

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The physiotherapy department for the group is at another hospital in the city, and the senior casualty officer can refer cases direct, but if treatment is not completed within fourteen days, the patients must be reviewed by a consultant.

The nearest rehabilitation centre, run by the R.A.F., is seven miles away. There is no resettlement clinic or medical interviewing committee. One of the general practitioners whom the team met is a member of the Ministry of Labour Rehabilitation Advisory Committee for the city and, while he was proud of their record in resettlement and of the work of the Remploy factory, he admitted there was no link with the hospitals so far as their rehabilitation services were concerned.

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Another converted ward houses the physiotherapy department, the responsibility of a physical medicine consultant, which is quite good considering the size of the hospital and the space available. The usual difficulty exists with a remedial gymnast working in isolation from the rest of the department. The occupational therapy department is small and mainly concerned with work on

the wards. The casualty officer has open access to the services. There is no resettlement clinic or medical interviewing committee.

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This department also comes under the physical medicine consultant. The physiotherapy department is old and cramped, activity almost entirely being confined to passive work. Again, a remedial gymnast runs the small gymnasium in isolation to the rest of the service. The casualty officer has direct access, but rarely refers patients. Occupational therapy is mainly concerned with basket work and other uninspiring diversions.

The terms 'resettlement clinic' and 'M.I.C.' are not known here; the almoner contacts the D.R.O. at her own discretion.

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The physiotherapy department is housed in the basement and, though the aspect is gloomy, it is fairly well equipped with a small gymnasium. There is no occupational therapy for outpatients, only a little done on the wards. There is no medical interviewing committee and resettlement is entirely the almoner's responsibility. The staff did not know the name of the local D.R.O.

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Not in size, but in terms of treatment, this physiotherapy department is said to be the biggest in England. An average of 550 patients pass through the department each day. However there is no occupational therapy unit and no gymnasium.

The 'temporary' hutted accommodation was built 25 years ago, to last ten years. Plans for a new department were drawn up, but abandoned when it was found that the lease of the land had only a short time to run. There are adequate dressing rooms, a wax-room, ultra violet ray room, registration/chief clerk's office and twin physiotherapy rooms with 20 cubicles in each. A 'pulley room' 15 ft. by 12 ft., and an exercise room of the same size together constitute a 'gymnasium'. In 1951, with the changeover from D.C. to A.C. all the equipment was replaced and is up to the standard required for a training school.

More than 80% of the work of the department comes from casualty. There used to be a special short wave diathermy clinic held in casualty in conjunction with the hand clinic, but this was suspended at the time of the team's visit, for an experimental period of six months. Penicillin blanket injections are widely used. Because the chief physiotherapist felt that patients were not being examined thoroughly in casualty, but being sent straight through for physiotherapy by the junior medical staff, she has managed to establish the rule that only registrars' and consultants' referrals are accepted. The consultants only see their patients in the casualty clinics and not in the physiotherapy department. There is no consultant in physical medicine or rheumatology in the city and it is said that all suggestions for such appointments have been opposed by the medical committee.

The local industrial rehabilitation unit, run by the Ministry of Labour under a part-time general practitioner, has no liaison with the hospital. Apart from the sanatoria medical interviewing committee, which is said to be very active, there is no other interviewing committee or resettlement clinic in the city. The chief physiotherapist herself takes on the job of contacting the local factories when she thinks it necessary, through the personnel officers or works managers, with a routine letter, followed up as often as possible by a direct telephone call. In fact she herself supplies the service which should be provided

by the D.R.O., copes with the medical aspect which should be carried out by the consultant in charge, and at the same time, through her routine work in the department, tries to make up for the lack of an occupational therapy service and a proper gymnasium.

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The physiotherapy department is on the ground floor of the adjacent block to the casualty department. There are eight cubicles, including one for short wave diathermy. There is no occupational therapy department and no special group exercises, although the gymnasium is adequate. The medical superintendent said that physiotherapy treatment is 'limited entirely to essentials'.

According to the Ministry of Labour there has been no medical interviewing committee held at the hospital since 1954.

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There are no rehabilitation services except for the employees of the major firm in the town, who have twelve places in their apprentice engineering shop. Originally, after the war, the company had put up a special building for rehabilitation, but immediately on completion it was taken over for some other purposes and the service has had to be confined to the twelve places mentioned. There are no plans for any better accommodation and generally interest appears to have waned.

Rather more than half the places are for hernia cases, but they cannot start before six weeks to three months because the work is too heavy. The majority of the workers have outside interests of their own, such as gardening and light odd-jobbing, which they can turn to while on sick leave. When they do start work again there is said to be a great deal of co-operation from their workmates, to help them over the first few weeks.

The consultant orthopædic surgeon had for some years been the medical officer of the local Remploy factory and had made weekly visits there, but he has handed over this appointment to a local general practitioner.

The first D.R.O. had been a patient at the hospital, and had done good work in resettlement. Since his retirement however there have been several changes and his successors had not taken the same interest. These appointments have all been part-time. There is no medical interviewing committee.

APPENDIX IV

EXTRACTS FROM REPORTS BY THE SURVEYING TEAM ON THE SEVERAL HOSPITALS' APPARENT CONCEPTIONS OF THE FUNCTION OF THEIR CASUALTY DEPARTMENTS

The hospital is aware of the need for consultant cover for casualties and the ratio of senior staff here is higher than anywhere else visited on the survey.

There are no barriers whatsoever to patients coming into the department for examination and treatment if necessary. No patient is turned away until they have seen a doctor, however trivial their complaint. This 'open door' policy is apparently a long-established tradition at the hospital, and although the consultant in charge would like to place some limitation on the types of cases coming in, the hospital management committee has always opposed any suggestion of a barrier. The record cards show that, with the high rate of 'casual' attenders and their return treatments, the casualty department is in fact offering an alternative general practitioner service. The large number of patients with referral letters seen waiting at 11 a.m., the 'peak post-surgery time', suggest the G.P.s themselves are using the department in this way. In the opinion of the staff of the department, however, any immunization programme against tetanus by toxoid should be the responsibility of the general practitioners.

Although this may well be the more economical way of dealing with them, the department has been made to accept a heavy load for minor operations and, for example, the reception for the dental service and routine cold admissions has been pushed on to the department on the excuse of shortage of space elsewhere in the hospital.

Planning for the future of the casualty service is low down on the list for priorities.

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It is difficult to assess the hospital's conception of what the casualty department's function should be. The staff seem to be aware of the deficiencies and the importance of proper medical cover. The consultant in charge said that the whole medical staff were worried about the subject of casualty, there was no complacency and the problem had been discussed *ad nauseam* at medical committee meetings for the last ten years, but with little obvious effective action—a fact which was confirmed by the local general practitioners.

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The hospital is aware of the need for consultant supervision for the casualty department as well as having an S.H.M.O. senior casualty officer. A successful attempt has been made to limit the work of the department to true casualties, by polite discouragement rather than an outright barrier against 'casual' attenders.

Unfortunately, although the standard of cleanliness is high, no attempt has been made to control cross-infection, indeed there does not appear to be any consciousness of the need for it.

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The tradition of an ex-municipal hospital's casualty department as an admission channel for all patients has been perpetuated. To quote from a paper by the senior casualty officer on the work of the department:

> 'The advantage of the system is in saving of house officers in that the duty house officer or house physician may be engaged in the operating theatre or outpatient department and not be available for urgent treatment. If this (examination of emergency admissions to the acute side of the hospital) were not done by the casualty officers, additional house surgeons and house physicians would undoubtedly be required, especially in the chronic wards.'

He does admit, however, that the system clutters up the department 'with patients not primarily its concern, with consequent delay to true casualties'. But he told the team that any attempt to limit those coming to the department would be blocked by local interests.

In spite of an adequate number of beds allocated for casualty there is apparently no drive on the part of the staff to establish their proper claim on these beds. In the same way, although a special X-ray unit has been provided for casualty it does not seem to be properly used by the department and has been allowed to become an overflow for inpatient work.

Although the hospital is conscious of the deficiencies of the casualty department, very little has been done to upgrade it and no imagination has gone into planning for its future. The department remains an isolated unit, at the bottom of any list for priorities.

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This department is providing a casualty service under special circumstances since all fractures are referred direct to the 'accident' hospital. There is perhaps a tendency to over-treat minor injuries under abnormally low, antibiotic cover, in fact hardly more than a 'penicillin parasol', and although the standard of sepsis control aimed at falls short of their ideal, the staff are not complacent about this aspect.

The same staffing problems for junior medical staff and off-duty cover are met here as everywhere else, aggravated by the complete divorce from any orthopædic work. Yet because the department is in the exceptional position by way of being the hobby of a consultant general surgeon, its work is well organized and geared to the service it should provide in this particular community, so long as the dichotomy with the orthopædic/accident hospital's casualty department persists.

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This department, although functionally in nurse staffing and common offices joined to the outpatient department and the rest of the hospital, is medically isolated. The senior casualty officer has access to beds and his colleagues rely on his judgement as a diagnostician. Otherwise the department is allowed generally to run itself, without interference, or in fact much interest from other quarters.

After a difficult period, in their relief at getting the S.H.M.O. senior casualty officer post filled, even with mediocre material, the Hospital staff have taken no steps to improve the quality and work of the department, allowing the appointment to act as 'a permanent analgesic against staffing headaches'.

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The amount of minor surgery done by the two general surgeons is well above the average for many other hospitals. Neither thought an orthopædic surgeon should be in charge of casualty, because such cases as sepsis and burns would not be adequately dealt with in the department. But though they agreed that the first examination of a casualty was of primary importance to the management of the case, they did not put forward any firm views as to who should conduct this examination on admission. Referrals by G.P.s for minor surgical operations are made by telephone direct with the house surgeon and the admission role of the casualty department is confined almost exclusively to real casualties, because of this practice and the strict regulation of attenders.

There was no evidence that one of the functions of a casualty department as a sepsis filter had ever been thought of. Infections, such as poisoned fingers, ingrowing toenails, etc., are referred direct from the casualty department to the outpatient clinic; patients with head injuries, burns and sepsis tend to get pushed through to the general surgeons.

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Not only in the physical sense is this casualty department in the centre of the hospital, but it is as well a fully integrated part at all levels. On his appointment, the consultant general surgeon in charge, in a pleasant personal letter to all the G.P.s, defined what he considered the proper functions of the department, and they have co-operated in this respect, not only as family doctors, but when covering the department as members of the medical staff of the hospital.

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The casualty department is an ancillary department at this hospital. That it is not more isolated is due probably to the influence and enterprise of the other main hospital in the group containing all the special units, and the personality of the sister. Without these permanent assests, with the yearly change of casualty officer and the lack of consultant control, it could become a very poor example of the 'shop-window' of the hospital service.

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The hospital's attitude towards its casualty department is one of *laissez faire* so long as the present senior casualty officer, who is running the department reasonably satisfactorily, relieved them of the worry of constantly changing medical staff. No real improvements for the service have been contemplated except in so far as, fortuitously, the department will gain added space (for an improved sister's office and a few ancillary rooms) when the present outpatient clinics are moved to the new extension.

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This department is a friendly, family, dispensary; it might almost be described as one of the social amenities of the borough. Although it is obvious that serious casualties are being channelled—or channelling themselves—to a nearby teaching hospital, the reaction of the hospital staff to any hint that their department might be dispensed with, should an area accident service be established was sharp. They considered that their service was serving a local need as part of the tradition of medical care in the district. They were also opposed to any suggestion of a barrier against casual attenders with trivial complaints, and saw no reason why such uninteresting clinical material should not find a home in the casualty department.

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This hospital's attitude to the problem of casualty seems even more negative than its proposal to relegate the new department to the status of a mere section of the outpatient block. Even so there are no plans on paper yet, only the basic square footage has been allocated and the architects have been asked to produce a detailed scheme, so far as the team could gather, without any particular schedule of requirements from the hospital—certainly the casualty sister had not been asked for her views on the lay-out of a new department.

The department here can be described as 'grubby and drab'. No thought has been given at all to the part it should play in the hospital's service. The disproportionate staffing, lack of any senior cover and the idea that any future department should be an appendix to the new outpatient block emphasize the hospital's attitude towards casualty.

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The senior casualty officer thought the function of his department should be to effect admissions to the hospital, to treat minor trauma, to arrange admissions of major trauma, dovetailing in with the other departments of the hospital. It is in fact claimed by a senior member of the consultant staff that, particularly since the appointment of a senior casualty officer, the hospital's record of sepsis had been very low and that this was largely due to the appreciation of this role of the casualty department. There were, however, no figures available on the infection rate at the hospital.

In particular it was felt that in any future plans for an accident service provision should be made for 48-hour observation beds for casualties. The senior casualty officer, after visiting the accident services at Birmingham, Leeds, Sunderland and Guy's hospitals, had come to the conclusion that his department would need 12 beds in wards of up to three beds, to deal with the following types of cases:

Sepsis	Query poisons
Head injuries	A.T.S. reactions

Younger collapses (the elderly cases being admitted straight to the geriatric hospital through the senior casualty officer's position as referee to the bed bureau) and

Recovery from intravenous anæsthetics (e.g. dislocations),
Clean trauma (e.g. special cases which now require admission),
Cold elective surgery (suitable for casualty).

On the part of the hospital staff as a whole there is a clear appreciation of the present situation regarding the provision of sufficient and adequate accident services for the country as a whole; they agree that the problem is not a static one; in their view it is going to increase year by year with growing economic implication to the country. There was an urgent need now to plan for the future, to equip the hospitals and train personnel to deal with accident cases and casualties properly and to ensure continued supervision over their complete rehabilitation.

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The hospital considered its casualty service in two aspects; major accidents and G.P. surgery work, with a ratio of 40 : 60 (an estimate not supported by the observations of the team, or borne out by the records seen). From time to time an effort is made to cut down the 'surgery work' by sending a strict memo. to a black-list of G.P.s, after which it was claimed the figures of such referrals dropped dramatically. Although there is in the department rather a feeble notice against

'casual' attendance, in practice all patients are examined by the casualty officers and by the time their case is identified as being too trivial for hospital treatment, the work has already been done and, in order not to waste more time, the patient is dealt with there and then. It was stated that the numbers of re-attendances depended largely on the interest of the particular senior casualty officer in office at the time.

The consultant staff were in favour of the system of the 'medical sorting room', taken each morning by a medical and surgical registrar, dealing particularly with the query cases, to separate the general practice cases from those which warrant hospital investigation. Apart from the advantage of the department itself, the staff felt the hospital should provide such a supporting service to the G.P.s, although they agreed that this could only be properly organized when an area accident/traumatic service was in existence, and it would have to be established as a completely separate activity.

This department is the first reception stage for major accidents, but there is no attempt to limit the case-load to essentially hospital cases; in fact the responsibility to provide a service to G.P.s for a second, short opinion is accepted. The need to ensure adequate medical cover for the department is recognized, although there is no continuous consultant supervision.

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This busy department is the nearest approach the team has yet seen to an accident service attached to a general hospital. There is no visible barrier against 'casual' attenders, but the department itself is difficult to find within the hospital grounds; it is in a part of the city which is mainly a shopping centre and the residential districts are on the outskirts of the town so for most of the patients it is easier and cheaper to go to their doctors' surgeries; the distance from the periphery of the catchment area prevents trivial cases coming to the department and finally there is also a certain amount of friendly persuasion and pre-selection by the sister and the chief records clerk.

Quite a high proportion of major accident surgery is being done and the department is organized and planned on this basis. Although physically it serves as the admission unit to the rest of the hospital, none of the casualty staff is involved in this work.

This is the first place visited where a practical attempt is being made to set up a barrier against *Staphylococcus phage* 80 between the casualty department and the hospital.

The casualty service works in isolation from the rest of the hospital, because it has developed its own independence, unlike other departments which have been set apart through lack of interest from the hospital.