Hospital Topics

Four years' experience of an interim secure unit

JAMES HIGGINS

Abstract

An interim secure unit of 14 beds (Rainford Ward) at Rainhill Hospital has been functioning for four years. During that period 78 patients were referred and 39 were admitted from various sources. Of those admitted, 40% were women, all had committed dangerous acts, and the most common diagnosis was schizophrenia. Only seven patients have stayed for one year or more, and only one seems set to stay indefinitely. Patients discharged are followed up in roughly equal numbers by their catchment area psychiatric teams and by the regional forensic psychiatric service. The number of patients in the ward has settled to about 12 for a population of one million. The unit now functions unobtrusively in a large psychiatric hospital, has a high morale, has had few recruiting problems, and has suffered extremely few disturbing incidents.

Introduction

After the recommendations of the departmental working party under the chairmanship of Dr Glancy (Glancy Report)¹ and the interim report of the Butler Committee on Mentally Abnormal Offenders (Butler Report),² DHSS authorised regional health authorities to provide regional security units for the care of a specific group of psychiatric patients. It also proposed that until such units were established interim arrangements should be made.

Only a few interim secure units have been established, varying in size, catchment area, level of security, level of staffing, regimen, and type of patient admitted.^{3,4}

The Mersey Regional Health Authority decided that each mental hospital in its region would provide temporary arrangements for its own catchment area before the opening of a purpose-built regional secure unit of 50 beds. Rainhill Hospital, a hospital with no locked facilities, agreed to provide an interim secure unit of 14 beds. Rainhill is a large mental hospital of 1500 beds serving a predominantly urban catchment area of about one million. There are five consultant teams, each with admission and long-stay wards. Most teams also have beds in a district general hospital and an associated day hospital.

Rainford Ward

This interim secure unit was provided by the structural alteration of a ground floor ward. Fourteen of the single rooms were retained for

patients, and several were converted into office accommodation. Dormitory areas provided a quiet room and an occupational therapy room. The major part of the £22 000 provided by the regional health authority was spent on secure windows and new locks on the outer doors. A courtyard adjacent to the ward has a 10 ft (3 m) high wall that is easily scalable and is not intended as a security measure.

Staffing levels

NURSING

It was decided that the nursing staff/patient ratio should be 1.5:1 and that this ratio should not be allowed to decrease. If staffing numbers were to drop patient admissions would be restricted. Staff of both sexes work 12-hour shifts and usually provide about five staff on duty during the day and three at night. All have been recruited from Rainhill and its associated hospitals. Women have been recruited more easily than men. All nurses are paid the "lead" for working in secure conditions. Some of the senior nurses spent some weeks training at a special hospital before the unit opened, but the remainder trained on the ward.

MEDICAL

It was initially considered that a unit integrated with the other consultant teams would require three sessions of consultant time. Such a working arrangement was not fully achieved, and the unit now functions as part of the regional forensic psychiatry service, both the consultant forensic psychiatrist and his senior registrar spending between two and three sessions a week on the ward.

PARAMEDICAL

A clinical psychologist spends two sessions and a probation liaison officer one session a week on the ward. A grade 3 social worker appointed to the regional forensic psychiatry service also works on the ward.

Patients

It was decided that the unit should accommodate 14 patients as the ward could easily be converted to that number, this approximated to the expected demand from the Rainhill Hospital catchment area of one million, and a small unit would be easier to manage and staff on an experimental basis. Men and women are admitted and only from the Rainhill Hospital catchment area. At the outset no firm diagnostic criteria were laid down for admission; each case was to be decided on its merits after a multidisciplinary assessment.

WARD POLICY

The perimeter doors of the ward are kept locked. The entrance is via a "security lobby" (double doors) to which all nursing staff have keys that are never taken from the ward. One nurse is nominated "security nurse" for the day, overseeing the distribution and collection

Regional Forensic Psychiatry Centre, Newsham General Hospital, Liverpool L6 4AF

JAMES HIGGINS, MB, MRCPsych, consultant forensic psychiatrist to the Mersey Regional Health Authority and the Home Office, and honorary clinical lecturer in forensic psychiatry to the University of Liverpool

of keys and other matters relating to security and having absolute discretion in all security matters. All the inner doors, except the nursing station and the occupational therapy room, are open during the day. There is no firm policy on the locking of bedroom doors at night; the patients' wishes are usually complied with. The ward has a seclusion room that has been used for only a few hours in four years.

After an initial assessment period of about two weeks each patient is allocated a parole status and an individual treatment programme. Parole status ranges from permanent detention in the ward to complete freedom to come and go on request, via intermediate stages of escorted and unescorted leave. Parole status for each week is determined at the weekly ward meeting. Status may be downgraded by any member of staff but may not be upgraded without consultation with senior medical and nursing staff. Patients are made clearly aware of their own and other patients' parole status.

The regimen of the ward is that of a therapeutic community with an emphasis on training in social skills. The opinions of patients are sought and encouraged both on an individual basis and during the group meetings, when discussions are focused on the maladaptive behaviours of the patients and the means by which they may be modified on the ward and in the community. Patients' groups sometimes form spontaneously to modify the behaviour of their fellows.

Despite the ward being permanently locked all but three patients have had unescorted parole. Most eventually earn completely unescorted parole before discharge or transfer to an open ward, while a few pursue a more episodic course. A patient may go anywhere on request provided he has the funds, his parole status is appropriate, and that if necessary sufficient nursing staff are available to go with him. Groups of patients regularly go shopping, go to entertainments and public houses, and some have even been on holiday for a week.

REFERRAL PROCEDURE

If possible a patient thought to need admission is referred by letter to the consultant in charge. Cases of emergency have been rare. I examine most serious offenders remanded in custody for a psychiatric report before their appearance at Liverpool Crown Court and many mentally abnormal offenders sentenced to imprisonment at HM Prison, Liverpool, and am, therefore, often the first to see many potential patients. Only if the consultant from the catchment area hospital considers that he would have difficulty in coping with the patient in a conventional ward is the patient then considered for admission to Rainford Ward. All referrals are seen by a member of the medical staff and at least two members of the nursing staff, with members of other disciplines attending as appropriate. Except in the rare cases of extreme urgency the decision to accept or refuse a patient is taken at the next weekly ward meeting when the patient's case is discussed. If a patient is refused a letter is sent explaining the reasons and advice on future management is given where appropriate.

CRITERIA FOR ADMISSION

No absolute criteria for admission were set out when the ward opened, and none have emerged since. The following issues are currently considered important:

(1) All patients must present a physical danger to others, and as the ward is kept permanently locked all patients must be liable for detention under the Mental Health Act, 1959.

(2) The level of physical security of the ward and the numbers of nursing staff available must be adequate for the management of the case.

(3) There must be an expectation that the patient will benefit from the regimen of the ward.

(4) The referring medical and nursing staff must agree to take a continuing interest in their patient and agree, subject to further consultation, to take him back when his behaviour has improved.

(5) If the patient is already in hospital it must be shown that he can no longer be managed in an open ward because (a) his behaviour has very seriously threatened the physical well-being of patients or staff and is likely to be repeated or (b) if less seriously threatening, his behaviour is so repetitive and disruptive that the ward regimen is completely upset.

(6) Patients seen as outpatients are assessed as if they were already in hospital.

(7) A patient referred from a remand centre, prison, or special hospital must have shown recent behaviour that would prevent him from being treated in an open ward or experience suggests that he

requires longer-term management, more individual treatment, and closer supervision on discharge.

REFERRALS

The 78 patients referred during the four-year period have included 67 first contacts (46 men, 21 women) and 11 re-referrals (7 men, 2 women). The average age of each sex was 32 years. Reasons for referral, diagnostic categories, and sources are shown in tables I, II, and III respectively.

TABLE I—Reason for referral

	Behaviour	Men	Women
Hospital	Violence and threats of violence	14	6
	Arson	1	3
	Aggressive sexual acts	1	0
	Persistent absconding with possible risk to others	5	0
Remand centre	For rehabilitation	1	0
	Violence and threats of violence	9	6
	Property offences and previous violence in hospital	3	0
	Theft and absconding	0	1
Prison	Arson	1	0
	Obvious mental illness needing treatment	4	1
Special hospital	No longer needing maximum security for rehabilitation	12	2
Outpatient and day hospital	Violence and threats of violence	4	3
	Theft and absconding	0	1
Total		55	23

TABLE II—Diagnosis of contacts

Diagnosis	Men	Women
Schizophrenia	24	9
Personality disorder	8	8
Personality disorder/schizophrenia	6	1
Affective psychosis	4	2
Brain damage/personality disorder	2	0
Epilepsy/personality disorder	2	1
Total	46	21

TABLE III—Source of referrals (number admitted in parentheses)

	Hospital	Remand centre	Special hospital	Prison	Outpatient and day hospital	Total
1st year	3 (1)	4 (3)	1 (1)	2 (1)	0 (0)	10 (6)
2nd year	11 (3)	6 (2)	2 (1)	2 (1)	2 (2)	23 (9)
3rd year	5 (3)	4 (3)	3 (2)	1 (1)	3 (2)	16 (11)
4th year	12 (3)	6 (5)	8 (3)	0 (0)	3 (2)	29 (13)
	31 (10)	20 (13)	14 (7)	5 (3)	8 (6)	78 (39)

Patients refused admission

Of 78 referrals, 34 were refused admission, principally because the patients' disturbed and disturbing behaviour was non-existent, had been exaggerated, was caused by friction with other patients or members of staff, resulted from insufficient medication or staffing, or would, in the case of those not in hospital, rapidly respond to treatment in an open ward without any risk to others.

Outcome of patients refused

Of the six men from a remand centre, four were admitted to an open ward under section 60 of the Mental Health Act where their progress was uneventful; one was referred for a special hospital bed but was finally sent to prison; and one was placed on probation. The only woman was placed on probation.

The two men seen in prison were discharged to the community on completing their sentences, and both have subsequently been admitted to hospital. One was re-referred and again refused admission, but admission was arranged to a special hospital.

Of the 12 men seen in hospital, three were later re-referred of whom

two were then admitted; of the remaining nine, all but two have subsequently been discharged and one is now in prison.

Of the two outpatients, one returned to a special hospital while the other was admitted to hospital under section 60.

ADMISSIONS (See table IV)

Of the 78 referrals, 44 patients were accepted but only 39 were finally admitted, the remaining five not appearing for various reasons. There were 35 first admissions (21 men, 14 women) and four re-admissions (3 men, 1 woman).

The mean age of the women was 31, and the diagnostic categories were: schizophrenia (8), affective psychosis (1), schizophrenia and personality disorder (1), epilepsy/personality disorder/psychosis (1), personality disorder (3).

The mean age of the men was 30, and the diagnostic categories were: schizophrenia (13), schizophrenia and personality disorder (2), brain damage and personality disorder (2), personality disorder and low intelligence (2), hypomania (1), and depression and personality disorder (1).

DISCHARGE

Again, no firm criteria have emerged on discharge policies. All that is expected is that the disturbed behaviour that caused the admission is much less likely to recur.

Patients ready for discharge fall into two groups: the first are those suitable for return to their catchment area team, having usually been admitted during an acute exacerbation of illness and are well known to their local psychiatric service. The others are principally those originally referred from a remand centre, prison, or special hospital, who have had fewer contacts with psychiatric services, are potentially more dangerous, and are particularly vulnerable to social and interpersonal stress. They require assiduous follow-up by the staff of the ward.

Discharge of the first type of patient follows regular discussion and evaluation with the responsible psychiatric team. Follow-up of the second group is provided by the regional forensic psychiatry service. The nurses of the ward then act as community nurses. This reassures others who also may be looking after these patients and often enables an earlier and smoother return to the community.

Discussion

The experience gained in Rainford Ward may help other hospitals attempting to establish similar units. Our approach to managing this difficult group of patients has allowed an unobtrusive integration of the secure units within the hospital, local community, and forensic psychiatric services.

The consistently high proportion (40%) of women admitted contrasts with the much higher male:female ratio in special hospitals, which might suggest lower admission criteria for women, but although a much higher proportion of those referred was admitted, women have in the main been responsible for the most serious acts and have been the most difficult to manage. Only two men were refused on grounds that they required higher security than the ward could offer, but another three were sent to a special hospital from the Rainhill catchment area without reference to the ward. Apparently the ward refuses men needing special hospital security but is inclined to take the more difficult female patient as she is less likely to be physically violent on the ward or a determined absconder.

The number of patients referred has fluctuated but admissions have gradually settled to about 12 a year (table III). The causes of fluctuation include industrial action, a surge of inappropriate referrals from within the hospital, and the increased number referred from one particular team in the hospital and from special hospitals in the past six months. As the staff and admission criteria have not changed much, this fluctuating rate highlights the effect of changes and attitude in policy elsewhere⁶ and the need for strict admission criteria. So far as is known there are no patients from our catchment area in other settings who would be acceptable to the unit.

The most common diagnosis in both sexes is schizophrenia. Some cases have remitted strikingly with treatment, leaving an almost intact personality and raising speculation about the diagnosis. Social factors seem to be important in the precipitation of their illnesses, and this vulnerability has led to diagnoses of personality disorder in the past and suggests a need for close follow-up on discharge. No patient categorised as psychopathic

TABLE IV—Admission to ward

Case No	Sex, age, diagnosis	Section	Source	Behaviour	Stay	Outcome
1	F 29 Sch	CPI	RC	Homicide	4 y	Conditional discharge approved
2	F 34 Sch	60	RC	Arson	1 y	Discharged. Now home
3	M 56 PD Dep	73	P	Suicidal	10 m	Discharged. Died natural causes
4	F 26 Sch PD	60	SH	Arson	6 m	Discharged. Mental Health Review Tribunal. Readmitted
5	M 27 Sch	26	RC	Burglary	9 m	Transferred to open ward. Readmitted
6	M 20 BD	26	Hosp	Arson	3 y 2 m	Expected long stay
7	M 33 Sch	60	RC	Wounding	3 m	Extended leave. Readmitted
8	F 22 Ep, PD Sub	26	Hosp	Violence	6 m	Extended leave. 6 days/week
4*	F 26 Sch PD	26	DH	Homicide	2 y 8 m	Extended leave to hostel
9	M 46 Sch	26	SP	Violence	5 m	Transferred to open ward
10	M 26 Sch	26	DH	Aggravated behaviour	3 m	Discharged to day hospital
11	M 31 Sch	60	Hosp	Violence	7 m	Transferred to open ward
5*	M 27 Sch	26	RC	Burglary	9 m	Transferred to open ward
12	M 22 Sch	26	Hosp	Violence	8 m	Extended leave
13	M 30 Sch	26	OP	Assault	2 m	Transferred to open ward
14	F 26 PD, Dep	26	Hosp	Homicidal threats	2 w	Transferred to open ward
15	F 26 Sch	73	RC	Wounding	5 m	Transferred to special hospital. Section 65
16	F 22 PD, Dep	25	OP	Homicidal threats	1 m	Discharged. Open prison
17	M 26 BD	65	SH	Burglary	8 m	Conditional discharge
18	M 34 Sub PD	65	SH	Homicide	6 m	Conditional discharge
19	M 34 Hypomania	72	P	Indecent assault	1 m	Discharged. Open prison
20	F 35 Sch	72	P	Homicide	1 y 6 m	Still inpatient
21	M 17 Sch	65	RC	Homicidal threats	1 y 6 m	Still inpatient
22	F 47 Sch	26	Hosp	Violence	2 m	Transferred to open ward
23	F 48 Hypomania	26	Hosp	Arson	2 m	Transferred to open ward
24	M 22 Sch + PD	73	RC	Arson	4 m	Imprisoned for later offence
25	M 55 Sch	Bail	RC	Homicide	1 y	Still inpatient. Section 65
26	F 36 Sch	73	RC	Grievous bodily harm	4 m	Section 60. Discharged to open prison
27	M 57 Sch	CPI	Hosp	Homicidal threats	1 m	Transferred to open ward
28	M 26 Sub Ep	65	SH	Violence	3 m	Conditional discharge
7*	M 34 Sch	26	OP	Violence	3 m	Extended leave. Died
29	F 42 Sch	65	SH	Homicide	2 m	Transferred to open ward
30	F 28 Sch	Bail	RC	Homicide	7 m	Still inpatient. Section 65
31	M 27 Sch	26	Hosp	Absconding	6 m	Transferred to open ward
11*	M 33 Sch	25	Hosp	Violence	2 m	Transferred to open ward
32	M 49 Sch	CPI	SH	Violence	1 m	Transferred to open ward
33	M 33 Sch	26	OP	Homicide	5 m	Awaiting trial
34	M 22 Sch PD	26	RC	Homicide	1.5 m	Returned to remand centre
35	F 44 PD, Dep	Bail	RC	Attempted murder	1 m	Discharged. Bail. Hostel

*Readmissions.

Sch = Schizophrenia; PD = personality disorder; Dep = depression; BD = brain damage; Ep = epilepsy; Sub = subnormal. CPI = Clinical Procedure (Insanity) Act; RC = Remand centre; P = prison; SH = special hospital; DH = day hospital; OP = open prison.

disorder alone has been admitted as the medical and nursing staff have reservations about psychopathy as a diagnostic entity, its response to medical treatment, and the wisdom of attempting long-term treatment in a small closed unit lacking many social and occupational facilities.

The highest number in the ward including those on extended leave, has been 13. Currently, about one-third of these patients are due to be discharged or transferred within the next few months so that this number is likely to be exceeded. Most patients need a stay of between two and 10 months. Only seven have remained on the ward for one year or more: two have been discharged, two are due to be discharged soon, only one seems set for an almost indefinite stay and two look set to stay about two years.

If this pattern of admission is representative then a catchment area of 1 000 000 people requires about 12 beds and produces about two patients a year who require a stay of over one year, although almost all of these may eventually be transferred or discharged. The estimate of need made by the Butler Report (40 per million) and the Glancy Report (20 per million) is higher. Rainford Ward seems to provide for the problem described in the Glancy Report but is increasingly taking patients from prisons and special hospitals and has recently assessed some individuals on remand. As beds in the regional secure units will be provided at 20 per million, the patient group described in both reports (offenders and non-offenders) will probably be catered for in regional secure units without difficulty. These, however, are likely to be built to a higher level of security and will take patients for assessment as well as for treatment, including patients considered too dangerous for interim secure units.

As the ward takes more patients for assessment before trial and as a pattern of sending fewer patients to special hospitals and taking more from them seems to be set, the type of patients in special hospitals from the Rainhill catchment area will inevitably change. Special hospitals will be asked to take only the very dangerous patients and those less dangerous but with a poor prospect of early rehabilitation. This pattern, if followed nationally, and extended further by regional secure units, will have considerable implications for special hospitals.

Gunn⁶ has described two forms of forensic psychiatry service—the integrated and the parallel. He, as does Butler Committee, sees the advantage of a forensic service integrated with prisons, special hospitals, regional secure units, and psychiatric hospitals, a service where there would be less isolation and rejection of patients. He believes, however, that unsympathetic attitudes in the NHS are unlikely to change sufficiently to permit such a service to be fully implemented. There are, however, advantages in a forensic service parallel to the rest of the NHS that would allow the development of expertise in managing difficult and at times dangerous patients and of efficient services to deal with them. He suggests that mixed patterns should develop. The experience of Rainford Ward suggests that a service offering elements of both types of service is inevitable and essential. About half of the patients admitted have been considered "integrated service" patients—that is, they have been admitted from a psychiatric hospital during an acute exacerbation of a chronic, rather typical illness, and when settled are fit to return to their original ward or to outpatient follow-up by their catchment area team. The "parallel service" patients have usually committed a more serious act, have come from prison, remand centre, or special hospital, have a more atypical illness, and require prolonged intensive follow-up on discharge by those who have cared for them during their admission.

Assaults on staff have been quite uncommon. Assaults on patients have been slightly more frequent, but they have almost entirely been due to the inevitable clashes of personality occasioned by living in a small group. No permanent injury of even a trivial nature has been sustained. Sexual activity between patients has been very rare and has been easy to dissuade and control.

The parole system was instituted about six months after the

opening of the ward when, due to industrial action, the transfer of patients to open wards was "blacked." Breaches of parole were expected to occur but were so infrequent and so minor that this policy has been continued and has become a major feature in the management programme.

With experience of running the ward, the staff's attitudes and expectations have changed. Awareness of security considerations remains but does not now unduly influence ward management. The few patients in the ward at any time allows them to be treated individually without many counter-productive general rules having to apply. These experiences suggest that it is impossible to decide at the outset on firm criteria for a ward, such as level of security, level of nursing staff, type of patient to be admitted, and the type of regimen to be followed. Flexibility is necessary to allow each to change as experience in running the ward is gained. It is, however, perhaps better to start with as high a level of physical security as is economically feasible to allow the staff to feel confident enough to run a liberal regimen, which if it is successful might allow the preoccupation with security to diminish.

Recruiting suitable nursing staff has become less difficult. Almost all have been recruited from within the hospital as national advertising was unsuccessful. The nursing staff:patient ratio has usually been around 1.5:1, and has allowed sufficient staff for the ward and for escort duty. Increasing visits by community nurses, however, have necessitated more nursing staff. Too many nurses in relation to the patients may cause the patients' behaviour to deteriorate. They complain of a lack of privacy and a paradoxical lack of attention as the nursing staff become bored and tend to associate more with themselves than with the patients. Similar experiences have been noted in other secure settings. In a unit of 50 beds or more, a staffing ratio of between 1.5:1 and 2:1 overall would seem reasonable, although this view contrasts with that of the Confederation of Health Service Employees.⁷ Other factors influencing nursing levels are the lead payment and the continual wastage of experienced male staff nurses. The lead, while providing a surprisingly small weekly increment in salary (£4), causes more difficulties in staff management than it benefits the rate of recruitment, and it separates the ward from the parent hospital in an undesirable way as staff from other wards cannot move to the interim secure unit. The lead is also seen by others as danger money, giving a totally false impression of the ward's function. The staff have responded to this imposed isolation by seeing themselves as a specialist group, which has promoted group cohesion, a radical reappraisal of treatment aims and practices, and has contributed to some staff remaining on the ward at the expense of promotion elsewhere.

It is difficult to be certain about the amount of medical time required. The ward was originally allocated three sessions of general consultant psychiatrist time. This seemed adequate for the running of an exclusively integrated service, but with the development of features of a parallel service three sessions would seem quite insufficient. A psychiatrist employed with other forensic psychiatry commitments might find three or four sessions adequate. If, however, the unit were to take on a much more extensive assessment function, particularly for courts as suggested in the proposals for remands to hospitals and interim hospital orders, this would be quite inadequate.

The two principal features responsible for the success of the unit are the size and site. A unit with 12 patients and 25 staff allows close personal relationships, leading to group cohesion and identification and an absence of bureaucratic and restrictive policies. A unit sited in a hospital, sharing the catchment area, allows difficulties to be hammered out among colleagues and a closer picture of the function of the unit to emerge. Larger, more secure units with extensive regional catchment areas will not have these benefits. To open such units without the experience of running lower grade facilities may result in great difficulties, such as those experienced by special hospitals over the past 20 years. To explore these possible difficulties, Rainford Ward will shortly increase its bed complement by 10, its staff by 15, and

its catchment area population by 700 000 from another mental hospital.

I thank Professor R S Buglass for his advice and guidance in the preparation of this paper.

References

- ¹ Working party on security in NHS psychiatric hospitals. *Report*. London: DHSS, 1974.
- ² Committee on Mentally Abnormal Offenders. *Report*. London: HMSO, 1975. (Cmd 6244.)

- ³ Faulk M. The Lyndhurst Unit at Knowle Hospital. *Bulletin of Royal College of Psychiatrists* March, 1979.
- ⁴ Higgins J. Rainford Ward, Rainhill Hospital. *Bulletin of Royal College of Psychiatrists* March, 1979.
- ⁵ Dell S. Transfer of special hospital patients to the NHS. *Br J Psychiatry* 1980;136:222-34.
- ⁶ Gunn J. Management of the mentally abnormal offender: integrated or parallel. *Proc R Soc Med* 1977;70:877-80.
- ⁷ Confederation of Health Service Employees. *NHS secure treatment units—a policy statement*. Banstead: COHSE, 1979.

(Accepted 12 December 1980)

MATERIA NON MEDICA

Lickey Incline

When I was approaching retirement patients would sometimes ask me where I was going to move to, and when I mentioned the Lickey Hills quite a few of my questioners (mostly men) would say: "Ah yes, isn't that where there is a steep hill on the railway?" The Lickey Incline is in fact the steepest hill on the British Rail standard gauge network, steeper—though not so long—as Shap. Its gradient is 1 in 37 while Shap is only 1 in 75, and its length is 2 miles, 4 chains. It has been a problem to steam trains ever since the Birmingham to Gloucester Railway (of which it is a part) was opened in 1840.

When I was a boy we had several family holidays at Blackwell, a small village at the top of the Incline, and my brothers and I spent many a happy hour watching the trains puffing and struggling slowly up the hill, helped by a bank engine at the back. As the track levelled out the bank engine would shut off steam, leaving the train to speed away; it would then back across the points and coast down the hill to await the next train.

Now the powerful diesels, with a good turn of speed at the bottom, mostly manage on their own, though their speed steadily drops from say 70 mph to perhaps 15 or even 10 at the summit. However, one or two diesel bankers are usually kept at Bromsgrove in case of trouble. Goods trains do, however, sometimes need banking, especially if fully laden, and also when there are the older trucks with chain couplings which are not strong enough to take the weight of the train behind them.

I have a colour print of a fine painting by Terence Cuneo of the LMS locomotive Kolhapur storming up the Incline in clouds of smoke and steam with two bankers just visible at the back. Kolhapur, by the way, is still in existence and stands in honourable retirement at the Railway Museum at Tyseley in Birmingham.—ROBERT C TAYLOR (retired surgeon, Lickey, nr Birmingham).

The pipe maker

The symposium was over. Time to kill before the annual dinner. "Come and see my friend the pipe maker." My colleague tempted me. A quick tube journey north to Junction Road N19. Yes, the shop still existed, wedged between new supermarkets and flats. "The craftsman was out," his sister informed us—"a follow-up appointment at St — following a recent prostatectomy," but we were made welcome, especially when we said we were doctors. Many of their customers were doctors. It was a marvellous old-fashioned shop with glass cabinets full of pipes of all sizes and shapes, while ancient advertisements, pictures, and knick-knacks for the pipe smoker covered the walls and shelves. Old Meerschaums were produced and lovingly displayed. The craftsman returned, and then we were really treated to all the enthusiasm of an expert. A quick appraisal of transurethral prostatectomy—fully appreciated as a fine internal "boring out" operation. "Yes," he could easily mend the two broken pipes my colleague had brought along: "A little silver ring? A new stem?"—ready by Christmas to be sent by registered post. The details were carefully itemised in an order book, surely printed in Dickens' day. "You'd like to see some briars? Come into the back room." Here was a craftsman's glory hole crammed with lathes, polishers, and other mysterious tools. We were overwhelmed with hand-made briars of all shapes and sizes. The prize-carved Meerschaums were brought out, each in their satin-lined case, weighed, fondled, and

all the finer points detailed and appreciated. I expressed an interest in briar wood and was instantly shown briar roots dug from the ground and instructed in the finer features of making pipes by hand. The minutes ticked by, and two hours later we left with our purchases neatly wrapped—the new briars signed with punches heated at the gas stove while we watched. A little money passed hands, maybe a quarter of what we would have paid in a retail tobacconist for such lovely hand-made pipes. For two hours we had had the joy and infinite pleasure of talking to a true craftsman.

"Any apprentices?" I asked.

"No," replied this sprightly 75 year old. What sadness to go with all our pleasure, to think that there was no one to carry on his numerous skills. Couldn't the youth employment schemes finance just one apprentice or must we be resigned to mass-produced pipes to go with packaged processed food? We just made the dinner, but the evening was not a success; I was too absorbed in wondering whether I could take a year off and become a pipe maker. Another pipe dream? Maybe, but I did have a lump of briar to start carving with.—C R TRIBE (pathologist and woodcarver, Bristol), aided and abetted by P A BACON (rheumatologist and pipe collector, Bath).

Steam therapy

Spa towns have long been frequented by the sick and elderly, rich and famous for the properties of their waters. One such spa town is Wiesbaden near Frankfurt. It is pleasantly landscaped with wide streets and spacious gardens. Idling in one of these gardens one hot September afternoon, taking a break from a rheumatology conference, I noticed a curious phenomenon.

There was a circular arcade with a supply of running, hot thermal water. People gathered here, but gossiping was secondary to sipping the steaming liquid from beakers. That was a very serious business. A decorative fountain was sited a short distance away, easily found by following one's nose and the rising steam. The sides were heavily crusted with mineral deposits, mainly yellow from sulphur. The water from both these sources was channelled away underground, but at frequent intervals throughout the garden vented drains gave exit to the steam.

It was here that another crowd gathered, with a definite pecking order. Pigeons flew in to gain access to the steam. Fit and healthy birds gave up their places as the sick arrived. Birds came with dragging wings and straggling feathers; others were lame and limping, some on mutilated claws. All these were allowed the best positions. They draped themselves across the vents with wings outstretched over their heads and feathers splayed. There was no bickering or fighting; the healthy even appeared to act as lookouts for those taking the steam, giving warning of approaching humans and dogs. The birds would then hobble away a short distance, returning when the intruders had passed. After some time steaming over a vent the birds would rise and walk around, presumably to cool off and allow other pigeons to take their place. When sufficiently cool and a vent had been vacated each resumed the flopped-out position over it.

It could not have been just for the heat that they came since the sun was hot and the pavements almost equally so. The birds stayed away from the fountains themselves—perhaps they were just too hot and the smell at its most pungent. It would seem that the steam baths were pleasurable and beneficial.—PENELOPE A BROUGHAM (rheumatology registrar, Aylesbury, Bucks).