

BATH CASES – care and treatment of patients at the Bath General Hospital during the mid eighteenth century

Roger Rolls

William Watts was 26 when the accident occurred. He had been busy for most of the day harvesting apples at his home in the small Gloucestershire town of Wotton-under-Edge. Anxious not to leave any fruit on the tree, Watts climbed higher and began shaking a branch. Suddenly, there was a crack. Watts found himself tumbling to the ground where he ended up on his back. After recovering from the immediate shock he tried to get up but all life seemed to have drained from his legs. Over the ensuing few days, things did not improve. The young man, paralysed from the waist down, could no longer work and had to turn to his parish for financial support. The injury to his spine had damaged the nerves to his bladder so that he could only pass water with the help of a catheter, a rigid tube made from silver which Watts eventually learnt to introduce into his bladder himself.¹

Nowadays, he would have been rushed off to hospital but this particular incident happened in 1780. Flashing blue lights and wailing sirens were not a feature of 18th century life and it was over a month before Watts found himself in a hospital ward. Though he could have been admitted to the infirmaries at either Bristol or Gloucester, he was sent a few extra miles to the hospital at Bath, an institution which had, within less than half a century since its foundation, built up a nation-wide reputation for successfully treating paralysed or rheumatic patients. This year marks the two hundred and fiftieth anniversary of the Bath Hospital, renamed in 1935 the Royal National Hospital for Rheumatic Diseases, though best known by the title adopted in the Victorian period – the Mineral Water Hospital.



1 Consulting the Doctors. Plate I from the *Comforts of Bath* by Thomas Rowlandson, 1798.

Hospitals, as we know them today, were largely a development of the 18th century. The impetus for founding hospitals at this time was a mixture of humanitarianism, economics and, particularly in the case of Bath, medical and social necessity. These considerations are clearly reflected in an early broadside to encourage prospective subscribers to the proposed hospital at Bath.

'Tis on this general principle of relieving the poor and distressed that many well disposed persons have set on foot and hope to establish a hospital at Bath and what more particularly moved them to promote this work was the consideration that in many cases the diseased poor might there recover their health which they could not do from any other charity or by any other means. The care of the physician, the assistance of the surgeon and the medicines of the apothecary may be had in any other part of the kingdom but the benefit of the Bath waters in their full virtue can only be enjoyed at the fountain head. The expense of poor

persons living at Bath long enough to receive a cure is greater than most parishes are able or willing to defray and they therefore choose to support their poor cripples by a small allowance at home rather than maintaining them at Bath. Few parishes are free from such persons who by the loss of their limbs are become a burden to themselves and their neighbours and drag on an easier life which by God's blessing on the charity here proposed might be rendered comfortable to themselves and profitable to the public.'

The financial burden of the chronically sick and physically handicapped particularly when such ill health threatened the industrial and agricultural work force, caused great concern among the wealthier classes whose income and prosperity could be easily threatened or compromised by such misfortune.

In some respects, the city of Bath itself was already one big infirmary. Dr William Oliver, a Restoration physician practising in the city (and not to be confused with the later and better known



2 The Bath Races. Plate 12 from the *Comforts of Bath* by Thomas Rowlandson, 1798.

William Oliver of biscuit fame) described Bath as the *Asylum Chronicorum Morborum*, a place of resort for sufferers of chronic disease.² Half a century later, the doctor turned novelist Tobias Smollett wrote 'Bath has become the great hospital of the nation, frequented by all the valetudinarians whose lives are of consequence to the commonwealth.'³ Drove of invalids descended on the city in ever increasing numbers, attracted by the promise of a cure in the hot mineral springs. There were also many less deserving persons who were reasonably healthy or whose illnesses were feigned so as to strike compassion in the hearts of the rich on whom these more unscrupulous elements of society preyed. The establishment of a medical institution was seen as a way of controlling the mendicant visitors whose presence in the city so annoyed the 'people of fashion'.⁴

Rheums and Humours

The medical profession, particularly from amongst those who practised at Bath, had popularised spa bathing as a method of treatment by publishing numerous treatises on the subject. The waters were recommended in the treatment of many chronic diseases. Dr William Turner, writing in 1562 listed over sixty conditions which he considered would benefit from a course of bathing.⁵ These included conditions as diverse as 'wormes in the bellie', the palsy, forgetfulness, infertility, the gout, trembling of the heart, and rheumatism. The waters of Bath also enjoyed a time honoured reputation for curing chronic skin rashes. Had not the legendary founder of Bath, prince Bladud, cured himself of leprosy by wallowing in the muddy pool surrounding the primaeval springs? The term leprosy continued to be used until the early 19th century as a description for any skin disease characterised by a scaly rash, particularly the disease now known as psoriasis.

Viewed in the light of modern pathological theory, the large assortment of diseases mentioned by Turner seems bereft of any common thread. But the 16th century theories of disease were very different from our own. At that time, the maintenance of a person's health was thought to depend on the balance of four vital bodily fluids called humours which ebbed and flowed through the body. According to classical Greek theory, which was

still the cornerstone of medical teaching until the mid 18th century, humours, like the four elements, had physical properties relating to their temperature and moisture. For example, yellow bile was hot and dry, like fire, whereas phlegm was cold and moist, corresponding with the 'element' water. The physician's job was to define which humour was in excess and then prescribe a treatment to help the body regain the right balance. Nearly all the diseases mentioned by Turner were thought to be due to an excess of phlegm in the malfunctioning organ. For instance, too much phlegm in brain led to forgetfulness, in the womb to infertility and in the limbs to paralysis and rheumatism. Even in recent times, it has been popularly supposed that rheumatic diseases are caused by exposure to damp and cold, though there is virtually no evidence to support this.

According to ancient dogma, phlegm, the cold moist humour, could be re-balanced by giving a hot drying remedy. Immersion in the Bath waters provided the necessary heat and, by promoting diuresis and sweating, the waters paradoxically exerted a drying effect. The waters were defined as 'dry', in the sense that wine is dry, by virtue of the dissolved minerals. This delightfully simple theory was elaborated in the 18th century to include more specific therapeutic effects thought to be due to the individual minerals in the waters. Though later disproved, it was believed that the mineral water applied externally could penetrate the pores of the skin and exert its effect on the underlying organs, a theory which led to the use of pumps and douches which could direct the water at high pressures against a part of the body requiring localised treatment.

Theoretical concepts of this nature governed the way in which doctors selected patients as suitable or 'proper' for Bath water treatment. Such patients were known as 'Bath Cases'. Over the years, experienced Bath physicians got to know the sort of case which responded best to the mineral water immersion therapy. By the second half of the 17th century, there was a growing realisation that a more rational approach to treatment was needed. In place of purely theoretical treatises, physicians like Robert Peirce and Edward Baynard began to publish their observations and accounts of actual cases.⁶ Another physician, Thomas Guidott, made it his business to compile a Register of two hundred cases successfully treated at Bath which he subsequently



3 Dr Oliver and Mr Peirce examining patients by William Hoare, 1762. (Courtesy the Paul Mellon Centre, London).

published.⁷ Peirce expressed certain reservations about such registers. He thought that very few patients would be contented to have their names mentioned publicly in a printed paper. But if the cases were not named, then such a publication would be unverifiable – ‘not much better than a quack setting up a bill at the corner of a street.’ Peirce, however, had no reservations about mentioning patients’ names in his own book, which includes medical histories of some quite well-known 17th century characters.

The usefulness of documenting clinical experience was a further reason for setting up hospitals in the 18th century. In the case of Bath, by founding a hospital, it was recognised that ‘the knowledge and use of the Bath waters will be greatly improved to the benefit of all succeeding generations’ and ‘a few years will furnish more histories of cases which may be depended upon (if the physicians keep registers of their sick under their care) than any man’s private practice could have done in any age.’⁸

Early Records

It is an ironic twist of fate that virtually all the leather-bound volumes of clinical records which were written up by the resident medical staff of the Bath General Hospital during the 18th century, having survived enemy bombing during World War Two, were disposed of in 1942 at the suggestion of the medical board then in office.⁹ Nobody seems to know what happened to them. The only clinical material left from this period is a book containing the transcription of referral letters for patients sent to the hospital between 1752 and 1758. Known hereafter as the *Case Book*, it contains about a thousand letters. Together with some published case notes by Dr William Oliver¹⁰ and Dr Rice Charlton,¹¹ the *Case Book* and other surviving documents in the hospital's archives provide enough information to build a reasonable picture of patients and their diseases treated at Bath during this period.

Most of the letters in the *Case Book* are written by apothecaries and surgeons, the 18th century equivalent of the patients' GPs. Contrary to popular belief, the provincial medical practitioners of this time were not an ill-educated bunch of quacks only interested in blood letting and leeches, but more often men of compassion, resourcefulness and expert clinical ability whose understanding of 18th century medical knowledge was as good as the more celebrated London physicians of the time.¹² It is worth remembering that Edward Jenner, who achieved world wide fame as the pioneer of smallpox vaccination, was also the village doctor at Berkeley in Gloucestershire. Certainly many of the letters in the *Case Book* display an adequate clinical appreciation of the patient's problem, and in a few cases the letters could almost have been written by a doctor in modern times. Others are less informative and caused the hospital's physicians to lament how such patients, perhaps travelling considerable distances from their homes, had to be sent back as unsuitable for mineral water treatment because their cases had been misleadingly or inadequately described.

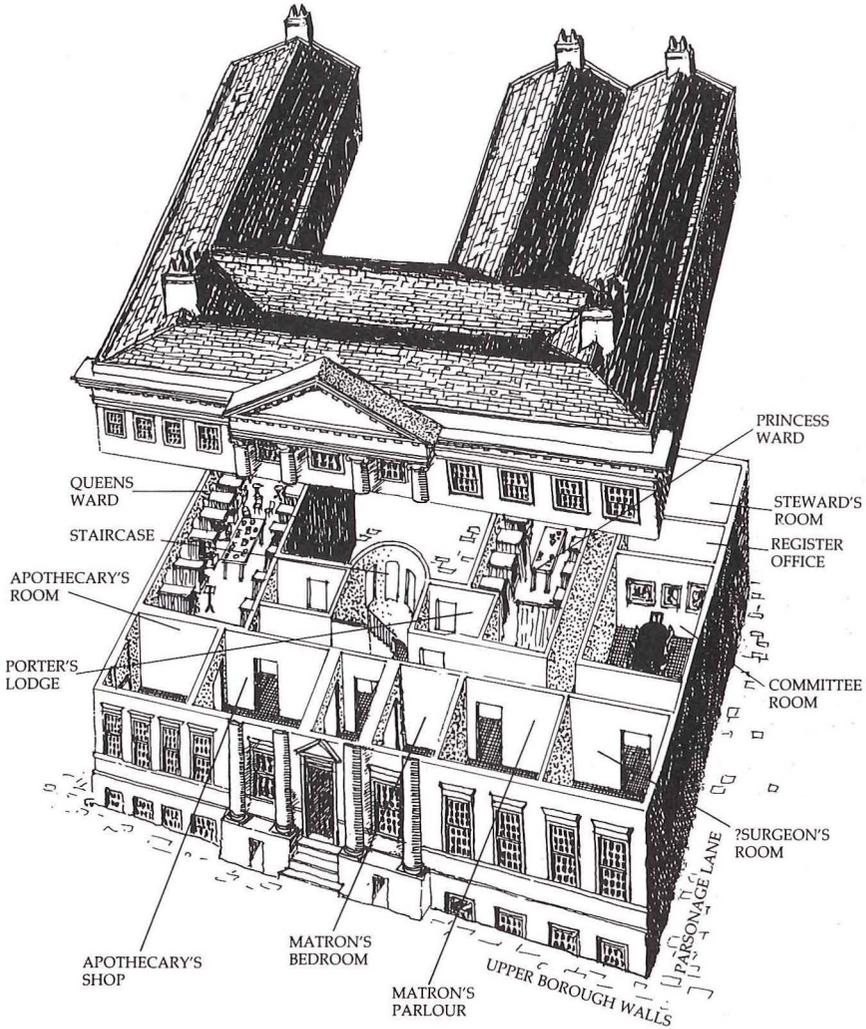
A minority of the letters do not come from the pen of a medical man but are signed by a parish minister or officer, though medical details are still given. Referrals also came from other hospitals, notably from Bristol, Gloucester, and several London hospitals. These patients had languished in the wards of their various

infirmaries without gaining much ground and were sent to Bath as a last resort. Other letters appearing in the *Case Book* are signed by one of the Bath Hospital's own medical staff. Many of this group of patients were already receiving treatment privately in Bath but their means were so stretched that they would not otherwise have been able to finish their course of treatment.

If the case, as outlined in the referral letter, was accepted by the hospital's physicians as suitable, it was minuted for admission at the next meeting of the management Committee. This Committee met regularly every Thursday to manage the finances and administer the affairs of the institution. As in modern times, the management was vested in a mixture of lay and medical persons. In the 18th century, the committee was chosen from amongst the hospital's Governors. Anyone subscribing £40 or more to the charity was entitled to be a Governor. Many celebrated names appear amongst the list of Governors at this time, including members of the Royal family, noblemen, parliamentarians, actors and artists, as well as the pillars of Bath society. The hospital relied on the generosity of individuals to maintain its finances in a healthy state. The subscriptions and donations were invested in stocks and farm land¹³ to provide income. Expenses were kept to a minimum by prudent management and, in times of financial stringency, admissions were reduced, nursing staff laid off and wards closed, methods all too familiar to us two and a half centuries later. This inevitably led to a fluctuating waiting list, and the hospital rules were adamant that no queue jumping could be tolerated. 'Every person minuted shall absolutely succeed in his turn, any interest or application from anybody whatsoever notwithstanding.'¹⁴

A Magnificent Pile

Until 1793, when a further storey was added to the building, the hospital could house about 70 patients. Designed by John Wood the elder, the building reflects the 'country house' approach to hospital planning which is a feature of the Georgian period. There were three storeys to the original building, entrance at the front (in Upper Borough Walls) being gained by a short flight of steps to the middle, or principal, storey. Most of the resident staff lived



4 Expanded drawing showing the internal arrangement of the Bath Hospital in 1742. The upper storey contained four wards. The kitchen was in the basement (Beneath Princess Ward).

and ate 'below stairs.' The patients occupied wards on the upper storey, while the principal storey was shared between two more wards, and various rooms required by those concerned with the administration of the institution – the medical staff, the matron and the Committee.

Though the front elevation, at least below the level of the cornice, has retained its 18th century appearance, the interior has substantially changed. In the early days, patients entered the doorway in the centre of the building, now permanently shut. Beyond this entrance vestibule, they would have been greeted by the porter who occupied a small room near the staircase. The resident apothecary and matron each had a bedroom and a sitting room on this floor and the apothecary's shop, later renamed the dispensary, was also here. There were separate rooms for the physicians and surgeons but, in view of their rather infrequent visits, their rooms were converted to other uses quite early on. Most of the women patients were accommodated on this floor in Queen's and Princesses' wards.

The original staircase ascended in an apse overlooking the rear courtyard, but all trace of this has disappeared, and the present concrete staircase on the east side is of recent construction. Upstairs, there were four more wards and a large storeroom which was converted into a ward in 1754.

The basement provided accommodation for the maids and other servants of the hospital as well as a kitchen, a bakehouse and brewhouse, a pantry, wash-houses for the patients, a laundry and a laboratory for compounding and refining medicines. The exact position of these rooms is uncertain as no plan of this level has come to light. Access to the basement was gained either via the main staircase or through a side door in Parsonage Lane. This was the entry for delivery of provisions and fuel. The lavatories, known variously as the houses of offices, necessary house and privies, were also on this level and there were frequent complaints that they stank, hardly surprising when one considers that all the hospital waste was swilled away along a drain which terminated in the ditch beyond the city wall. The hospital's drains were not connected to the city's common sewer until 1764. Fresh water was obtained through a hand pump fed from a well at the rear of the hospital.

Patients

Poverty was the one common denominator in all patients admitted to the Hospital in its early days. Some patients arrived in such a ragged state that they had to be given clothes by the Hospital merely for the sake of decency. Others were filthy and it was the Matron's job to inspect and to 'cause new patients to be made clean'.¹⁵ There was a bath tub in the basement for this purpose, and the hospital seems to have ordered a liberal supply of Best Bristol Soap in its earlier years as well as plenty of 'flesh' brushes for scrubbing the skin, though both of these may have been intended primarily for therapeutic use; the soap to make liniments and enemas and the flesh brushes as instruments of massage. The frequent immersion in the hot baths during their stay would have ensured that patients in the Hospital were a good deal more savoury than many a person of quality lodging in easier circumstances a few streets away.

The *Case Book* gives some indication of patients' social circumstances. The age distribution reflects that of the general population at this time and there are relatively few patients over sixty. About 5% of admissions in 1752 were under ten years old. Like the adults, children often had to stay in the hospital for several months and were accommodated on the women's wards. In an age when the young were treated at best like adults in miniature and at worst like animals, life in the women's wards was probably a pleasant release from the drudgery, harshness and poverty of outside. A century passed before child patients received regular education during their admission.¹⁶ Even then tuition was sporadic, probably because there were seldom more than a handful of children in the hospital, and it was not felt worthwhile engaging an infant teacher as a permanent member of staff.

The patients' occupations are infrequently recorded in the letters but, as one would expect, many of the male patients were agricultural workers and domestic traders – for example, farm hands, gardeners, barbers, butchers, tailors, carpenters. Some patients were involved in manufacturing industries, such as brass founders, glaziers and glass-grinders, pewterers, shoemakers, potters. Of the latter group, exposure to lead and other heavy metals was often the precipitating cause of their illness. Painters

CONDITIONS of ADMISSION

Into the GENERAL-HOSPITAL at BATH.

THE Case of the Patient must be described by some Physician or Person of Skill in the Neighbourhood of the Place, where the Patient has resided for some Time; and this Description, together with a Certificate of the Poverty of the Patient, attested by some Persons of Credit, must be sent in a Letter, Franked or Post-paid, directed to the Register of the *General Hospital* at BATH.

☞ The Age of the Patient ought to be mentioned in the Description of his Case, and the Persons who describe are desired to be particular in the Enumeration of the Symptoms; so that neither improper Cases may be admitted, nor proper Ones rejected.

II. After the Patient's Case has been thus described, and sent, he must remain in his usual Place or Residence 'till he has Notice of a Vacancy, signified by a Letter from the Register

III. Upon the Receipt of such a Letter, the Patient must set forward for BATH, bringing with him this Letter, the Parish Certificate duly executed, and allowed by two Justices, and Three Pounds Caution Money, if from any Part of England or Wales; but if the Patient comes from Scotland or Ireland, then the Caution Money to be deposited before Admission, is the Sum of Five Pounds.

IV. Soldiers may, instead of Parish Certificates, bring a Certificate from their Commanding Officers, signifying to what Corps they belong, and that they shall be received into the same Corps, when discharged from the HOSPITAL, in whatever Condition they are. But it is necessary, that their Cases be described, and sent previously, and that they bring with them Three Pounds Caution Money.

☞ The Intention of the Caution Money is to defray the Expences of returning the Patients after they are discharged from the HOSPITAL, or of their Burial in Case they die there. The Remainder of the Caution Money, after these Expences are defrayed, will be returned to the Person who deposited it.

•• All poor Persons coming to BATH, under Pretence of getting into the HOSPITAL, without having their Cases thus described, and sent previously, and Leave given to come, will be treated as Vagrants, as the Act of Parliament, for the Regulation of the HOSPITAL, requires.

N. B. If any Patient should have the Small-Pox here, such Person must be removed out of the House, and the Caution Money defray the Expence thereof. Likewise all Persons who shall come into the Hospital without decent and necessary Apparel, must have such Necessaries provided out of the said Caution Money.

and plumbers frequently appear for the same reason. Only a third of all admissions were female. Those women who were single were mostly in service but many were married women who, as a result of physical disability, were incapable of looking after their families.

Not infrequently, the patient's illness was itself the cause of impoverished circumstances, and some of the referral letters dwell as much on the patient's financial misfortunes as on their medical details. James Ward, a 50 year old surgeon, had once enjoyed a thriving practice at Bodmin but years of ill health had greatly reduced his circumstances. He was struggling to maintain his practice when he fell from his horse and broke his leg. After that, he could no longer walk unaided and, with meagre savings and no work, he could not even entertain the prospect of a trip to Bath where he might find the most efficacious treatment. Fortunately, he was accepted for admission by the hospital and was able to scrape enough together for the journey.¹⁷

Soldiers also appear quite frequently amongst the early records, particularly when the British army was engaged in military action. Large numbers were admitted in 1745 after receiving injuries in the Jacobite uprising.

Travel

The majority of patients admitted in the 18th century lived within a day's journey of Bath, though significant numbers came from London. Those patients from further afield sometimes took several days to arrive, and the fatigue of the journey must have often adversely affected their chances of recovery. The cost of transporting poor patients frequently had to be borne by their parishes and the hospital demanded three pounds 'caution money' for each patient admitted. This was retained until the patient was discharged and it indemnified the hospital against the cost of providing transport home. When an Irishman was discharged in June 1743, it cost £2-9-6d for his passage to Cork.¹⁸ The higher cost of long journeys determined the governors to recommend an increased rate of £5 caution money for patients coming from Ireland and Scotland. In the 19th century the railways transformed travel, making it easier and cheaper to get

to Bath from distant areas of Britain; but in earlier years the colossal expense of long distance travel probably deterred many patients from coming to the hospital. A Leicester doctor, referring a poor patient for admission in 1754, wrote that the man's equally poverty-stricken friends were desirous that the patient should go to Bath to take the waters and were trying to raise money to convey him to the hospital 'with great difficulty – even that of begging'.¹⁹

Caution money was used to defray other expenses such as extra wages paid to nurses who looked after patients with smallpox.²⁰ Those who arrived suffering from infectious diseases were turned away, as was anyone whose case was thought to be venereal. Expectant mothers were also barred from admission though women recently confined were accepted. In such cases, a nurse was sometimes employed at extra expense to 'draw the breasts'.²¹ Occasionally, women patients were accepted for admission and subsequently found to be pregnant. The medical staff sometimes missed quite obvious symptoms of early pregnancy. It took them over a month to realise that a patient admitted in 1754 with abdominal discomfort, vomiting and missed periods was becoming 'big with child'.²²

Patients resident in Bath itself could not be admitted. This rule, which was rescinded in 1835, was introduced because it was thought that local people would not require accommodation and yet could still avail themselves of the Corporation's baths. In fact, this rule only applied to persons resident within the city walls: those living in areas like Walcot and Widcombe, now very much part of Bath, were eligible for admission.

Ten Shillings a Coffin

If a patient died in hospital, the caution money was used to defray the funeral expenses. 18th century funerals, like those of today, were not cheap. When a patient died in 1756, it cost thirteen shillings 'for breaking the ground', five shillings for a shroud and ten shillings for a coffin.²³ Deaths were uncommon – out of 500 cases admitted between 1752 and 1754, only 24 died in hospital. This is all the more remarkable bearing in mind that Bath was often the last resort for the chronically ill and injured.

The hospital had its own burial ground situated across the street on the far side of the city wall. It is first mentioned in 1743²⁴ when Mr Emes, the hospital's builder, was employed to 'make a passage through the town wall and a staircase down to the burying ground', though the city council did not officially grant use of the land for burial until 1767.²⁵

Life on the Wards

The wards were furnished in much the same manner as we are accustomed to seeing in the more traditional hospitals of the present day: beds at intervals along the two long walls and a long table down the middle. The first bedsteads were wooden and made by a local cabinet maker, Gracious Stride, at a cost of thirty shillings each.²⁶ The design was copied from those used in London hospitals and each bed was draped around with blue check curtains matching those at the windows. The luxury of the inter-sprung mattress, indeed even bed springing itself, was not a feature of these 18th century beds; patients slept on mattresses supported on sackcloth. Pillows and bed linen were provided, and Matron was expected to put clean sheets on the beds of new patients though the bed linen was only changed once a month.²⁷ From 1752 onwards, the wooden bedsteads were gradually replaced with iron ones.

Life on the wards had always stirred at an early hour, a tradition perpetuated since Georgian times when patients were aroused from their slumbers at the crack of dawn. The first task of the able bodied patients was to help the nurses clear up the wards. The bare oak boards were cleaned by scattering sand and ashes about the floor and then sweeping them up. Matron visited the wards every day to supervise the nurses and make sure the patients were behaving in a proper manner. By modern standards, patients had to adhere to a relatively restrictive set of rules. They were not allowed to play cards or dice or curse and swear. Men and women were not supposed to visit each other's wards without special permission from Matron, though this does not seem to have been rigorously enforced in the early days as at least two patients were recorded as having eloped.²⁸

Patients who wrote letters were also viewed with suspicion. In

1742, the Committee exhorted 'officers of the house (to be) diligent in discovering any correspondence that may be carried on between patients in the house or (with) any person of the house whatsoever, by letter or otherwise, and if any letter be suspected of holding an improper correspondence, such letter will be delivered to the House Visitors at their next visitation.'²⁹ Patients were even forbidden to lend or borrow money, though this would not have bothered them much as there was nothing to spend it on except food and they were not allowed to have extra provisions.

Tea on Prescription

Meals were eaten in the wards. The food was sent up from the kitchen and was not always as hot as the patients would have liked. The wards were supplied with saucepans and a kettle for boiling tea, a drink available only on prescription until the late 19th century when tea replaced gruel as the breakfast beverage. Plenty of beer was available, brewed on the premises, and even some house wine, made from Malaga raisins obtained at Bristol.³⁰ The wine was supposedly drunk for its medicinal value. The Governors were only too aware of the problems of inebriation and publicans in Bath were forbidden to serve patients with intoxicating liquor on pain of losing their licence.³¹ Patients were issued with brass identity badges when they were admitted and were not allowed out of the hospital unless they were wearing them.

The choice of patients' diet was the responsibility of the medical staff and the apothecary had to prepare a diet list for each ward. By modern standards, the diet was monotonous, though reasonably nutritious. Meals consisted principally of meat broth, bread which was baked on the premises, rice and cheese. No green-grocery was ordered until 1844 when the Matron was instructed to add a little oatmeal and vegetables to the broth 'by way of experiment'.³² Preservation of food would have been a problem before the advent of refrigerators. The hospital kitchen was not equipped with a fridge until 1889.

All able bodied patients were not only expected to help clean the wards but also lend a hand in the laundry and aid the nursing of their fellow patients whose infirmities confined them to wheelchairs or bed. The hospital provided crutches for those

needing them and special chairs which were designed by the medical staff for paralysed patients.³³ The absence of nearby lavatories in the 18th century made provision of urinals and close stools a necessity on each ward for the convenience of those unable to get downstairs to the 'Houses of Offices'.

On Sundays the patients could go to one of the churches or chapels in the city, but only if they wore their badges. A visitor to Bath in 1766, the Rev. John Penrose, witnessed a party of patients attending a service at the Abbey.

'It was a very affecting sight to see all the patients ranged in two lines, men on one side, women on the other, making a lane from the outer door of the Abbey to the door of the inner part where the service is performed, for the Mayor and Magistrates and all the congregation to pass through. Eight beadles, in a Uniform Dress (Brown Greatcoats with yellow capes and sleeves turned up with yellow) with a staff in hand with a brass knob on top, attended them. And when they went from church, they all walked two and two, very orderly, four beadles with staves preceding, then the men patients, then two more beadles, the women patients, then the two other beadles closing the procession.'³⁴

During the week, prayers were read on the wards. Before a chaplain was appointed (in 1775), this task fell upon any nurse who was literate enough to read the prayer book. Patients were also allowed out to 'take the air' in the meadows beyond the town wall, presumably upwind from the ditch where the sewage discharged. All patients had to return in time for supper and were not allowed out at night.

Nursing

Each ward was staffed by one nurse whose duty was to look after the patients and ensure that 'decency and good order prevailed.' An hour after she finished her cleaning, the nurse would be busy serving breakfast sent up from the kitchen below stairs. At night, nurses slept at one end of their respective wards in a small apartment screened off by curtains. One can assume they must have been disturbed at night on occasions though the hospital's

chairmen were employed to sit up with very ill patients and paid eight pence a night for their trouble. Night nurses were not employed until 1891. Before then, the hours of duty for nurses had been long and tedious, and it is not surprising that these women became bad tempered and turned to the bottle. They could not even leave the hospital without permission from Matron.

The Matron and a house steward were responsible for running the hospital's domestic affairs. The Matron was given an allowance by the treasurer to purchase all the household linen, to order provisions for the kitchen and keep a stock of things like candles and soap in store. The Committee frequently exhorted Matron to be prudent and frugal. Linen was never thrown away until it was threadbare and even then it was cut up and used by the surgeons for dressings. A cloth-woman was paid two shillings and sixpence a week to mend linen and patients' clothes, though the patients themselves did a lot of this work.

During the 18th century the number of nurses varied from four to nine, depending on the state of hospital's funds. On the whole, they seem to have been dependable and remained in employment for an average of seven years, ranging from a few months to twenty years. Quite a few died in office. A minority was dismissed, primarily for drunkenness or insolence; while in 1772 it was reported that Nurse Woodward would be replaced because she had eloped, though with whom is not recorded.³⁵ Occasionally there was a general reshuffle of staff so that a nurse became the cook, the cook became the house maid and so on. Not all indiscretion led to dismissal. Despite Nurse Waters' 'obstructing ye charity of the house by advising a person not to put his benefaction in the (contributions) box but give it to the porter',³⁶ she was retained on the staff for a further eighteen years.

Treatment

Throughout the week, the patients went to the baths for treatment. In the early days the treatments were relatively simple. Mineral water was not piped to the hospital until 1830 when two baths were constructed for men and women respectively. Before this, patients made use of the corporation baths. Men and women

were never allowed to bathe together, the former visiting the baths on Tuesdays, Thursdays and Saturdays and the women on the other weekdays. Those who could walk were expected to hobble to the baths as best they could but the hospital possessed several wheelchairs and three closed bathing chairs which Smollett suggests³⁷ were constructed from a design by Archibald Cleland, a surgeon dismissed in 1743 for professional misconduct. The original chairs were made in 1749 by Mr Jelly, the hospital carpenter³⁸ and one of these still survives.

Bathing commenced at 10 a.m. in the Hot Bath, though hospital patients used the larger King's Bath from 1750 onwards. They were accompanied by two *bath guides* employed by the hospital whose job was to help patients in and out of the water and who, in some measure, may be regarded as embryonic physiotherapists. One of their duties was to check the temperature of the water and regulate it to between 98° and 100°F, the level recommended by the hospital medical staff.³⁹ Even today, the water in the hospital hydrotherapy pool is maintained in this temperature range.

The hospital provided special garments for patients to wear whilst bathing. The men wore canvas shirts and the women canvas shifts. In July 1743 the Committee heard that several male patients were seen 'without their linnen and swimming naked in the bath'.⁴⁰ Even worse, the guides were reported to be drinking spirituous liquors with the patients while bathing.

On the rare occasions when the hospital physicians prescribed cold water bathing, the unfortunate patient had to go to the nearby village of Widcombe, just south of the city, where there was a bath house supplied by a cold spring of mineral water.⁴¹ Sadly this Cold Bath house was demolished in the 1970s to make way for a new road.

Besides general immersion, particular parts of the body were treated by directing jets of water at them. By the middle of the 17th century, the corporation installed hand pumps in and on the side of the baths. Physicians had to specify the number of pump strokes their patient was to receive, sometimes as many as several thousand. The person operating the pump must often have been in need of treatment himself after such exertion. General immersion in hot water was thought injurious if a patient's organs were too 'hot'. Localised douching was called *dry pumping*. The patient

usually perched on a stool while the affected organ was sprayed. Douching was not confined to external parts of the body. Injections of mineral water into the vagina were recommended for uterine diseases as early as the 17th century and mineral water enemas were given by the hospital's surgeons to treat constipation.

Drugs

The bath waters were used as the primary means of treatment but the hospital also had an extensive stock of drugs. Dr Oliver seems to have been particularly keen on using drugs and received the censure of one patient for so doing.⁴² Nor was it only patients who questioned the use of drugs. Dr William Baylies (1724–1787), piqued at being refused the opportunity to become an honorary physician to the hospital, claimed that combinations of medicine and mineral water prejudiced the recovery of patients and endangered those of a fragile disposition.⁴³ The hospital physicians seem to have taken a more pragmatic approach, declaring that 'the waters are by no means a panacea and often require assistance from medicine whilst they are drunk; neither will they defend those who use them externally or internally from the various disorders incident to them at their own houses.'⁴⁴

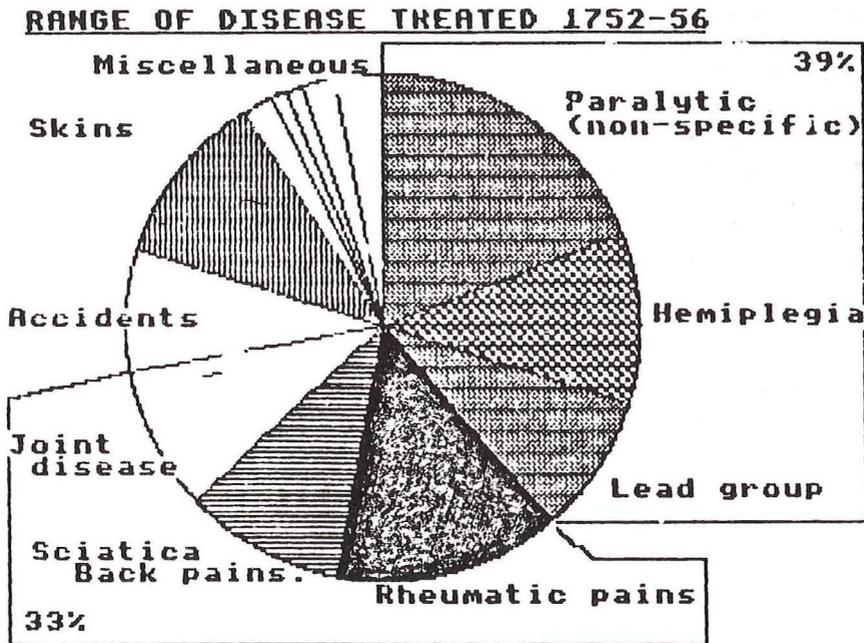
There were economic considerations which could not be ignored. The drug bill in the 18th century threw a significant burden on the hospital's finances, and 'physicians and surgeons belonging to the hospital had to be at all times attentive to the interests of the house by ordering as little medicine as possible.'⁴⁵ Some idea of the cost of individual *materia medica* can be obtained by inspecting the hospital's *incidentals book*. Most of the preparations listed are herbs which may have been grown locally and inexpensively. Though more than sixty preparations appear in this book, it is evident from the published hospital prescriptions⁴⁶ that a far bigger selection of *materia medica* was in use. Many of the drugs used in these prescriptions were compounded from plants only found in foreign countries and were presumably amongst the packs of drugs sent down from the hospital's London supplier.

Cured by the Bath

The Bath waters appear to have been remarkably effective in curing lead palsy. The hospital had a well defined classification by which the medical staff assessed the results of treatment when patients were discharged. According to Dr Charleton,⁴⁷ the outcome was defined into one of five groups:

- Cured
- Much Better
- Better
- No better
- Dead.

Not all patients could be assessed in this way because some were discharged prematurely for misbehaviour, or got fed up and took their own discharge. A small proportion of patients were



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classified *improper*, a term which did not relate to their behaviour but rather to the opinion that their case was not suitable for mineral water treatment. Because the outcome of all patients' admissions was published in the local newspapers, it was obviously in the hospital's interest to demonstrate a high cure rate to would-be subscribers. For this reason, a certain amount of scepticism is necessary when judging the efficacy of treatment. Furthermore, patients were often admitted for a very lengthy stay, sufficient in most instances for an improvement to be seen if the disorder commonly resolved naturally.

But even allowing for such bias, the evidence obtained from analysing the outcome of the lead-related paralytic cases admitted between 1752–58 demonstrates a remarkable success rate in the treatment of this disorder compared with other types of paralyse. And even if the patients were kept in the hospital for a lengthy stay, the patients' referral letters often record that they had 'laboured under their disorder' for a very much longer period and, in some instances, patients had been admitted to other hospitals where treatment had been unsuccessful. This applies particularly to the cases with features of lead poisoning, and to patients suffering from skin disease.

Could the mineral water treatment have in some way helped rid these patients of their lead? This intriguing possibility has been recently investigated by Drs O'Hare, Heywood and Dieppe⁴⁸ who have studied the effects of prolonged immersion on reducing the lead levels of industrial workers who are exposed to the metal. Their results suggest that immersion in deep baths is of benefit and may explain why so many of the 18th century paralytic cases did particularly well at Bath. Together with copious and frequent draughts of mineral water, and the hospital's tough policy towards patients' sorties into the town's public houses, a sojourn of three to six months at Bath probably effected a virtual elimination of lead from most of these patients and thereby cured their symptoms.

Though one can only confidently attribute lead poisoning to those 18th century cases where there is a clear description of *colic* preceding *palsy*, or where a palsy occurred in a patient whose trade involved high risks of lead exposure, such cases are possibly only the tip of an iceberg of plumbism which affected much of the population at this time. Muscular soreness and stiffness (i.e.

symptoms of rheumatism) often precede the paralytic phase, and constipation, a frequent complaint in patients admitted to the hospital at this time, was the natural consequence of the bowel spasm which chronic lead toxicity produces. Close examination of the *Case Book* reveals patients successfully recovered from symptoms such as convulsions, blindness, vomiting, and tremors, all of which are suggestive of poisoning by lead or other heavy metals.

Gout can also be precipitated by lead poisoning because of the toxic effect on the kidneys which leads to the retention of uric acid. Traditionally, gout is associated with port drinking and it has been suggested that fortified wines in the 18th century were heavily contaminated with lead. Recent chemical analyses carried out on some very old bottles of port and madeira have proved this to be so.⁴⁹ Rum from the West Indies was another potent source of lead and was undoubtedly the cause of the *West Indian Colic*. Though gout was extremely common in the 18th century, there are remarkably few cases mentioned in the hospital records at that time, though it is notable that some of the paralytic cases draw attention to hard painful swellings on the backs of the hands which could well have been due to gout. Despite this observation, gout was primarily a disease of the affluent and well-fed who were in the daily habit of consuming large quantities of meat, the principal source of uric acid. These were not the sort of persons who would have generally required the charitable support of the hospital.

Notes

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- 5 Turner, W. *A book of the natures and properties of the baths of England*. Arnold Birkmann. Colen. 1562.
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- 7 Guidott, T. *The Register of Bath*. London. 1694.
- 8 *Minute Book 1* (R.N.H.R.D. Archives).
- 9 *Minute Book 35*. (p. 417) (R.N.H.R.D. Archives).

- 10 *Cases of Persons admitted into the Infirmary at Bath under the care of Dr Oliver.* BATH. 1760. p. 33.
- 11 Charleton, R. *Three tracts on the Bath Waters.* Bath. 1774.
- 12 Burnby, J.A. *Study of the English Apothecary from 1690 to 1760.* Wellcome Inst. for the Hist. of Medicine. London. 1983.
- 13 The hospital acquired a large estate at Charmey Down, near Bath, in 1750.
- 14 *Minute Book* (R.N.H.R.D. Archives).
- 15 *House Visitors Book.* 1758 (R.N.H.R.D. Archives).
- 16 *Minute Book 18.* (R.N.H.R.D. Archives).
- 17 *Case Book* (R.N.H.R.D. Archives).
- 18 *Incidentals Book* (R.N.H.R.D. Archives).
- 19 *Case Book* (R.N.H.R.D. Archives).
- 20 *Incidentals Book 1753.* (R.N.H.R.D. Archives).
- 21 *ibid.* 1757.
- 22 *Case Book* (R.N.H.R.D. Archives).
- 23 *Incidentals Book.* (R.N.H.R.D. Archives).
- 24 *Minute Book 1* (R.N.H.R.D. Archives).
- 25 *Minute Book 6* (R.N.H.R.D. Archives).
- 26 *Minute Book 1* (R.N.H.R.D. Archives).
- 27 *Rule Book.* (R.N.H.R.D. Archives).
- 28 *Minute Book (1795)* (R.N.H.R.D. Archives).
- 29 *Minute Book 1* (R.N.H.R.D. Archives).
- 30 *Minute Book 3* (R.N.H.R.D. Archives)
- 31 *Minute Book 10* (R.N.H.R.D. Archives).
- 32 *Minute Book 19* (R.N.H.R.D. Archives).
- 33 *Minute Book 2* (R.N.H.R.D. Archives).
- 34 *Letters from Bath. (1766-67)* by Rev. J. Penrose. Alan Sutton. Gloucester. 1983. p. 59.
- 35 *Minute Book 7* (R.N.H.R.D. Archives).
- 36 *House Visitors Book.* 1754. (R.N.H.R.D. Archives).
- 37 Smollet. *op. cit.* note 3.
- 38 *Minute Book 3* (R.N.H.R.D. Archives).
- 39 *Minute Book 9* (R.N.H.R.D. Archives).
- 40 *House Visitors Book.* 1743. (R.N.H.R.D. Archives).
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- 45 *ibid.*
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