

The years of expansion (1948–1982)

Under the NHS

The National Health Service (NHS) from its inception in 1948 was constantly scrutinized and revised and there were many modifications primarily to combat its cost. In 1958 *The Times* published a review of the first 10 years of the NHS which included general practice, the consultant, cost, research, hospitals and other aspects of the service.¹ The review concluded that ‘as judged by the health of the nation since its introduction, the Service had been an unqualified success’. The hospitals were the most expensive item in the NHS taking up 60 per cent of the gross cost of the service and it was considered that more use should be made of them. There were at least twenty revisions to the Act of relevance to the hospitals during this period. The need for change was reflected in most hospitals and the Royal National Throat, Nose and Ear Hospital (RNTNE) went through a period of change and development. The most significant of these changes were the construction of the Nuffield Hearing and Speech Centre for children in 1963 and the Audiology Centre for adults in 1982 to meet the new demands of the NHS.

With the Hospital’s designation as a teaching hospital under the NHS Act this meant, in addition to the care of patients, that it had special status and responsibilities in regard to teaching and research, and that it was managed by its own Board of Governors. The Governors’ Fund was established from the balance of the money donated to the Hospital and was to be used for extra comforts for patients whilst in Hospital. It provided additional amenities on the wards, after care services where needed when the patient went home, and recreational facilities for staff. This fund was also used for research into complex diseases and investigation into varying aspects of deafness.

A meeting of the Board of Governors² took place on 23rd June 1948 in which all staff appointments were confirmed and various committees were set up including: a Medical Council for all consultant medical staff, a General Purposes Committee for the running of the Hospital and a Joint Planning and Co-ordinating Committee linked to the new Institute of Laryngology and Otology (ILO). The Hospital also joined the Teaching Hospitals Association and so a new era had begun.³ Professor F.C. Ormerod (1895–1967) ENT surgeon at Golden Square and the Westminster Hospital, was primarily interested in the academic side of the specialty and the creation and inauguration of the ILO. He was regarded as a man of utmost integrity and as a member of the Court of Examiners of the Royal College of Surgeons of England was able to influence the training of young otolaryngologists. He had worked unceasingly for the location of an academic department of otolaryngology in London⁴ and Gray’s Inn Road had tried to enlarge its Hospital so that it would be the accepted choice. The Hospital was ready and equipped to cope with the changes and its staff looked forward to its new role.

A payment of £30 000 was received from the Ministry of Health (MOH) to open the Hospital account.⁵ The MOH also agreed to finance 11 private beds at Gray’s Inn Road and five beds at Golden Square. In this accommodation patients would be required to pay the charges of the specialist under whose care they were, plus X-rays, physiotherapy, etc. at regulated prices.⁶ Aneurin Bevan, Minister of Health, had reluctantly agreed that specialists should be allowed to have fee-paying patients in hospitals.⁷ Under the NHS all UK surgeons had been made consultants and were employed on contracts by the MOH. These contracts was usually part-time to allow for private practice and one out-patient session to match each operating

¹ *The Times, Supplement on The National Health Service, First Ten Years*, 7th July, 1958.

² The Board of Governors were individually appointed by the Minister of Health, following nominations from the former Hospitals Board of Management, medical staff and the University of London. The Board of Governors was E.E. Taylor, Mrs Arthur Rye, Mrs Clare Turquet, L.D. Lewis, F.C. Ormerod, J.R. Rosselli, N. Asherson, F.R. Eiloart, W.S. McKenzie, A.W. Scott, S.A. Beards, G. Gill-Carey, F.N. Hornsby, T.H. Lawley.

³ The Teaching Hospitals Association was set up in 1949 for all hospitals designated as teaching hospitals under the NHS Act of 1946. There were 36 hospitals in membership, 14 of whom were London postgraduate teaching hospitals.

⁴ Professor Ormerod published *Tuberculosis of the Upper Respiratory Tract*, in 1939 but his main interest lay in the management of malignant disease of the head and neck. *Nature*, 4th March, 1967, **213**. *Institute of Laryngology and Otology and Royal National Throat, Nose and Ear Hospital, Reports*, **16**: 1965–66, p. viii.

⁵ £30,000 would be equivalent to about £534,000 today, not a generous sum with which to integrate two hospitals into a new building.

⁶ *Minutes of the Board of Governors*, Royal National Throat, Nose and Ear Hospital, 22nd June 1948.

⁷ Foot, M. (1973) *Aneurin Bevan*, Davis-Poynter, London, vol. 2 1945–1960, p 137.

session. As the surgeons were now paid instead of giving their services voluntarily they gained additional income from the private patients who used their beds in the hospitals. Each surgeon was given the same number of beds and each hospital was competing directly for funds so extra income accruing to the hospitals by the use of private beds was very useful. This subject was always a very sensitive one with the consultants who liked to use the hospital services for private patients but were unused to paying for them. At the RNTNE Hospital the link with the Institute of Laryngology and Otology, which had direct University affiliation, gave the Hospital a certain amount of status with referring general practitioners. The Institute and Hospital combined for the appointment of specialists as payment from the NHS was available for staff with contact with patients and patients were essential for the training of students.

After the war-time amalgamation with the Golden Square Hospital, development on the first stage of the 'new hospital' began. The Board took possession of a print works⁸ and adjoining offices to enable the proposed ward block to be built with the assistance of the MOH. It also acquired the former St Jude's School which had belonged to the adjoining church and the completion of the Princess Louise Wing, started in 1928, marked the first stage of the new hospital: a children's ward (Ward D named after Dundas Grant) and a women's ward (Ward C named after Carmalt Jones) added 52 beds.⁹ The hospital's surgical facilities were also updated with twin theatre units each with its own anaesthetic room, operating theatre, sluice room, sterilizing room, nurses' duty room, and surgeons' changing room. The remodelling of the out-patient department gave greater privacy for patients undergoing examination and treatment.¹⁰ The Hospital Board felt encouraged by the fact that the MOH wanted the eventual redevelopment to provide 300 NHS and 30 private beds.

The question of waiting lists also became important and evening surgeries were suggested in an effort to reduce these as a day-time hospital visit by the patient often meant the loss of a day's pay. In the annual report of 1951 the waiting list is given at 1 042, half that of the previous year but it appears to have been difficult for the Hospital to reduce the number of patients on the list much below this figure due mostly to rebuilding on both sites.

A coat of arms, which now hangs in the entrance hall at Gray's Inn Road, was acquired for the Hospital in 1951 at a cost of £160 (Figure 11). A replica of this was put on the nurses' badge and made its appearance on the front of the annual report in 1951 and symbolized the major roles of the



FIG. 11

Coat of Arms – The two lighted candles are the candles of St Blaise, the patron saint of the throat. The central sprigs are of the herb 'all heal' (*Heradium Panaces* Linnaeus) referring to the Hospital's work of healing. The chaplet of roses of England supporting an open book, symbolic of the Hospital's work in connection with teaching. The Lion and Unicorn heads acknowledge the royal support given to the Hospital. The supporters are Aesculapius, Greek God of Medicine, on the left, and on the right his daughter Hygeia, Goddess of Health. Aesculapius holds the staff of healing and a retort representing the work of research. Hygeia holds a lamp representing the search for truth. The interpretation of the motto is: 'The deaf shall hear, the dumb shall speak'.

specialist hospital, healing, teaching and research.¹¹ The coat of arms re-inforced an identity for the Hospital now on two sites which was seen by patients, staff and visitors.

A small mortuary chapel was built within the Hospital to commemorate the coronation of Elizabeth II in 1953 dedicated to St Blaise, patron saint of the throat and St Blaise's Day was then celebrated annually by the Hospital on the 3rd February. A statue of this saint was commissioned and erected in the entrance of the Gray's Inn Road Hospital after its exhibition at the Royal Academy.¹²

As the Hospital gained strength, several projects previously discontinued during war-time were reinstated. The special clinics expanded and the creation of regular tutorial meetings and clubs linked to research and treatment began to be established. The Allergy/Rhinology clinic, originally set up in the 1930s via the Pathology Department, was restarted following the return of Dr H. A. Lucas from the forces. He also organized the planning of the museum, a preparation room and laboratories in

⁸ This was the Albion Print Works and paper store. It has always been alleged that this was the publishing office of the Communist Party but I cannot find any proof of this.

⁹ *Annual Report*, The Royal National Throat, Nose and Ear Hospital, 1947.

¹⁰ *Year-book*, The Royal National Throat, Nose and Ear Hospital, 1950, p 12.

¹¹ The armorial bearings and supporters were granted to the Board of Governors by the College of Arms 28th September 1951.

¹² The statue was commissioned from Cecil Thomas and exhibited at the 1955 Summer Exhibition at the Royal Academy.

¹³ Horne, J. (1928) *The Patron saint of laryngology. Proceedings of the Royal Society of Medicine*, p 1021–1023.

the few years before his retirement in 1952.¹³ Dr Lucas was the Hospital's second pathologist (following Dr Wingrave) and was very active in setting up this area of work. His writings were mainly concerned with rhinology. He also researched the changes in the internal ear and VIIIth nerve in fatal cases of tuberculous meningitis with Edith Whetnall and published a paper on this in 1952.¹⁴ The Allergy clinic dealt with 1,800 cases of allergic rhinitis in one year (1950) but there was a reluctance to prescribe drugs both because of their cost and because of the unknown side-effects of long-term dosage. One of the first findings was the linking of dust and mould allergy with residences within 180 yards from a waterway whether open or hidden. This clinic received a grant of £500 for research from the Board of Governors, but after Dr Lucas's departure its investigative role ceased until the arrival of Dr Capel in 1963.

A joint Radiotherapy clinic was set up in 1950¹⁵ and involved the surgeons, a consultant radiotherapist to the Hospital from the Marsden Hospital, a pathologist to analyse the biopsy section of the patient's tumour, a medical reports clerk, a nurse and the professor's secretary in attendance. In 1950, 112 cases of cancer were referred to this clinic of which 102 were malignant. The number of patients at the clinics did not change much in later years. The numbers of patients were restricted as each patient required a suitable amount of time for discussion of their treatment with pathologist, surgeon and radiotherapist. Setting up such a clinic did indicate the widening expertise needed for treatment of head and neck cancers.

The Fenestration Department had been established before the war and fenestration for the relief of deafness was regularly performed during the 1950s. Although fenestration completed the surgery in one stage, it gave only limited improvement in hearing for the patient. This procedure was discarded when the American surgeon William Shea introduced stapedectomy using his microsurgical instruments in 1958.¹⁶ The stapedectomy operation was once common for the restoration of hearing by removing the immobile stapes and replacing it with a prosthesis which was mobile. One RNTNEH surgeon (Mr T. R. Bull) records having undertaken over 3 000 stapedectomies during 20 years.¹⁷ Stapedectomies are still performed but greater refinement of hearing aids and more recently the cochlear implant have made them less common.

By 1952 the Hospital had departments of Radiology, Physical Medicine, Rhinitis, Radiotherapy,

Medicine, Dentistry, Plastic Surgery, Neuro-surgery, Audiology, Fenestration, Speech-therapy and a lip-reading Clinic to try to give a complete service on all aspects of otolaryngological illness.

In 1951 the 'Laryngectomee Club' now called the 'Swallow Club' was set up¹⁸ with 20 members and run by Miss Johns the almoner. This was funded by the Hospital Governors and enabled patients who had had total laryngectomies to meet and discuss problems and help each other to converse more easily. A member of this club would be present when the doctor counselled a patient prior to the operation and would show them examples of nasopharyngeal speech. This method was expanded in a book published by Mr Bull (surgeon) and Miss Cook (speech therapist) in 1976.¹⁹

With the introduction of prescription charges to the patient in 1968/69 expenditure fell but rapidly rising costs made constant revision of the NHS inevitable. The comparison of costs between the various London hospitals is difficult to ascertain but the Hospitals' Year Book gives running costs per in-patient comparing regions, teaching hospitals and national averages. The RNTNEH Annual Report for 1954 noted that cost per in-patient 'was substantially lower than the average for other specialist postgraduate teaching hospitals and for the undergraduate teaching hospitals' but no amount was given. The actual weekly in-patient cost recorded for 1946 was £14 3s. 3d., 1947, £19 14s. 1d. and in 1960 was £29 3s. 2d. Apart from these figures no weekly in-patient costs are given in the annual reports. Running costs went from £48 620 in 1946 to £372 928 in 1960 and by 1975 had reached £2 million. In-patient numbers had risen from 2 329 in 1946 to 7 343 in 1960 to 9 000 in 1975.

The NHS encouraged the participation of expatients and their relatives in aspects of hospital life. The Friends of the Hospital were now the fund-raisers, albeit for enlarging the Governors' funds instead of raising the money needed for the upkeep of the Hospital.

Miss Johns retrained to become a medical social worker because of the bereavement counselling needed for the high number of cancer deaths on the Professorial Unit²⁰ during the 1960s when new methods were being tried for treatment. There were also a greater professionalism expected from the role of the almoner. By the 1970s the Hospital had a team of social workers but by 1983 these workers came under the umbrella of the Camden Council. After cut-backs by Camden the social work department was closed but the Hospital maintained one part-

¹⁴ Lucas, H. A., Whetnall, E. (1952) Changes in the internal ear and VIIIth nerve in fatal cases of tuberculosis meningitis treated by streptomycin and dihydrostreptomycin. *Proceedings of the Royal Society of Medicine*, **45**: 779.

¹⁵ *Institute of Laryngology and Otology and Royal National Throat, Nose and Ear Hospital, Reports*. (1952) Headley Bros, London, p 273.

¹⁶ Shea, J. J. Jr. (1960) Vein graft closure of eardrum perforations. *Journal of Laryngology and Otology*, **74**: 358.

¹⁷ Mr T. R. Bull went as a visiting Fellow to John Shea of Memphis Tennessee in 1964 and from there to Jamaica where he carried out the first stapedectomies in Jamaica.

¹⁸ *Reports op. cit.* note 15, 1952, p 275.

¹⁹ Bull, T., Cook, J. (1976) *Speech Therapy and ENT Surgery*, Blackwell Scientific Publications, London.

²⁰ Miss Johns, personal interview, 1988.

time worker with deaf children and a cancer counsellor.

Professor Friedmann joined the Institute in 1949 working with Dr Lucas and succeeded as Director of the Pathology Department in 1952. He was awarded the chair of Pathology in 1963 and retired in 1972. Professor Friedmann set up regular evening meetings to discuss the pathology of cases to train the junior doctors in the skills of reading pathological results. These meetings were extended to become weekly meetings organized by the senior registrar and open to all ENT junior medical staff in London. There was a marked increase in the cost of pathological services in 1964 caused by an increase in the number of biopsy analyses. Professor Friedmann's work on cholesteatoma, rubella and tissue culture of the inner ear was of great benefit to the specialty and it was he who introduced the electron microscope to the Institute. Although it was not used directly in treatment it showed certain features of tumour analysis which assisted classification and ultimately therapy. Professor Friedmann's work was incorporated into the World Health Organization's first classification of tumours of the upper respiratory tract and ear. He also completed the first edition of his *Pathology of the Ear*²¹ shortly after his retirement in 1972. He was succeeded by Professor Michaels whose skill in identifying tumours was of great help to the surgeons. He regularly published his work greatly broadening the knowledge of histopathology and the pathology of ENT.²²

The junior doctors began a Journal Club in 1964 in which they held a debate, led by consultants, on opposing techniques for various ENT diseases and the contemporary papers written on these subjects. The opportunity to hear of the work of other ENT departments around the country and to compare it with that done at Gray's Inn Road led to a wider awareness of the progress of treatments within the specialty and enabled original ideas to be adopted or adapted by other surgeons. Lectures to the junior doctors at Gray's Inn Road were strongly supported by consultants from other hospitals such as Mr Ian Mackay and particularly those who had worked at Gray's Inn Road such as Mr McNab Jones, Mr A. W. Morrison, Mr Garfield Davies, Mr John Booth, Mr J. G. Fraser, Mr J. E. Wright, Mr McHardy Young and Mr Henry Grant.

In 1953 the Semon Club (named after Sir Felix Semon) was started at Gray's Inn Road. Before the war difficult and undiagnosed cases from around the country were seen at meetings of the Royal Society of Medicine but afterwards this practice was discontinued. It was started up again at this Hospital by Mr

George Buchanan, one of the surgeons on the Professorial Unit, to meet three times a year so that ENT consultants from around the country could present unusual cases or see some of the unique cases presented at the RNTNEH. The Semon Club still meets three times a year at the Hospital and the Journal Club and Monday evening meetings have continued uninterrupted until the present.²³

The post-war Hospital expansion, when it came, was in the audiological services which were linked to the changing structure of the NHS. This involved a move to preventive medicine with a greater emphasis on diagnostic research. Professor Ormerod, the head of the new Institute, and Mr Young, the Hospital Secretary, travelled to the USA to visit other hospitals and clinics to study administration and services provided.²⁴ Their visit was followed by that of Dr Edith Whetnall (1910–1965) who pioneered techniques for the treatment of deaf children and set up a residual school at Ealing.²⁵

Following the end of the war, the physical condition of Britain's children began to be monitored more stringently and there were special check-ups at school for both medical and dental health. In 1946 the RNTNE Hospital had set up a special clinic for children suffering from chronic ear conditions. This had developed from the Hearing Aid Clinic started in 1934 for children and the establishment of a children's clinic for lip-reading.²⁶ This clinic was under the directorship of Edith Whetnall who, in spite of long bouts of ill health, became a world authority on deafness in children. Elementary education for deaf children became compulsory in 1893 and the 1944 Education Act made secondary education for deaf and dumb children compulsory.²⁷ There was a great need to define the deafness and differentiate between those children who required special education from those whose deafness could be alleviated by medical treatment.

Professor Ormerod's many interests included the Deafness Aid Clinic which was held at Golden Square for a time and research was undertaken there. The projects included studies of pre-school children with deafness, teaching of the deaf, lip reading, auditory training, evaluation of the standard of intelligence of deaf children, improvement in methods of teaching deaf children, coping with ineducable deaf children, clinics for early otitis media with effusion (glue ear), presbycusis (the lessening of acuteness of hearing that occurs with old age), measurements of residual hearing, correlation of intelligence level and degree of hearing loss with acquisition of language, development of speech and pure tone audiometry, improvement of group

²¹ Friedmann, I. (1974) *The Pathology of the Ear*, Blackwell Scientific, London.

²² Michaels, L. (1984) *Pathology of the Larynx*, Springer Verlag, London.

²³ Radcliffe, A. Personal correspondence, 12th September 1991.

²⁴ This visit was to gain practical information for the daily working and future planning of the Hospital and Institute and was financed by the Rockefeller Foundation.

²⁵ Weir, N. (1990) *Otolaryngology An Illustrated History*, Butterworths, London, p 97.

²⁶ Central London, Throat, Nose and Ear Hospital, *Annual Report*, 1935.

²⁷ Scott Stevenson, R., Guthrie, D. (1949) *A History of Oto-Laryngology*, Livingstone, Edinburgh, p 78.

audiometry and testing, improvement of hearing aids, primary research into causes of deafness in children including the use of radium and medication harmful to the delicate mechanism of the ear (particularly at that time, the streptomycins) and the study of deafness following meningitis (a more common disease than at present).

The London County Council (LCC) and local councils also began referring pre-school children and in 1952 the Hospital financed the building of a residential annexe, for deaf children undergoing treatment and training, on the site of the old Convalescent Home at Ealing. This was where parents could take their newly diagnosed deaf children for five days of counselling and management of their deafness, with regular follow up. Ian Macleod, Minister of Health, opened this unit in September 1953.²⁸ By 1957 the upkeep of the RNTNEH hostel at Ealing went under the care of the MOH but the house remained the property of the Hospital Governors. A second house in Ealing followed in 1960 for four to six-year-old children with severe forms of speech and language disorder. The function of this unit was to provide assessment, intensive therapy and teaching. The children were resident on a weekly boarding basis and the average length of stay was 15 months. The King's Fund granted £20 000 for this building which was matched by £28 923 from the Hospital Governors to enable this house to be purchased as a resident hostel which was opened by Enoch Powell, Minister of Health, in 1961.²⁹

The work of Edith Whetnall was encouraged by the financial aid of the Nuffield Foundation. Initially in 1952 they provided pictorial aids for training deaf children and a teacher for the deaf but by 1959 they funded three teaching students to expand Edith Whetnall's methods to older children.³⁰ Nuffield offered £100 000 towards the cost of building a hearing and speech centre designed for the diagnosis, assessment and development of hearing and speech in children suffering from impairment or total deafness. It was decided to erect this on Swinton Street next to the original Hospital and the Hospital Governors presented a portion of the building for the scheme. The Centre was run initially by Edith Whetnall and a staff of doctors, teachers of the deaf, psychologists, speech therapists, audiological technicians and a social worker. The Nuffield Hearing and Speech Centre was completed and opened in December 1963, featured in TV documentaries, and became 'charity of the year'. Mr Tony Martin,

Miss Whetnall's assistant, organized courses for consultants, medical officers of health, health visitors, psychologists and students. It was of great interest to foreign visitors who wished to set up similar centres.³¹ The Nuffield work was based on early diagnosis and the art of listening. Through observation of deaf children or children with multiple handicaps constant refinement was made to the treatment of these children and the ways used to cure their hearing and speech problems and to disseminate the experience gained at the Nuffield Centre.

The awareness of the perils of undetected deafness in the schoolchild and its long-term effect on behavioural development and education was one of the factors that encouraged the use of hearing aids for children. Children outnumbered the adults in the audiology unit 672:200 and, in 1952, 479 children were seen. Their treatment followed that laid down by Edith Whetnall. It included careful diagnosis of the type of hearing loss, followed by training in listening techniques. In 1953 hearing aids were issued to 809 children. These were usually the standard Medresco types, (developed for the Medical Research Council by the Hospital's Dr Littler), except for the very young but by 1954 simpler hearing aids were provided for children by the local education authorities or charities,³² by then the numbers had dropped to 365. Dr L. Fisch as research assistant pioneered and published work in this field in the 1950s.³³

At the time when Miss Whetnall died, after an evening meeting at the Hospital in October 1965, her clinics were used as a model throughout the country and abroad. Her name was perpetuated in the Edith Whetnall Lecture given on alternative years at the Royal Society of Medicine³⁴ and through her book *The Deaf Child*.³⁵ Her successor, Tony Martin, took over and improved the centre with the construction of soundproof rooms and the implementation of modern methods of hearing loss detection and speech therapy. The dyspraxia programme³⁶ initiated by Mr Martin is still used world-wide.

Audiology

This Hospital's two specialties were closely inter-linked – otolaryngology (ENT) and audiological medicine. Initially this arose as leading consultants such as Dundas-Grant and Ormerod encompassed all aspects of ENT including otology. The complementary specialty of audiological medicine was

²⁸ Spencer Tracey, the American film star, was a spectator at this event as Edith Whetnall had visited Mrs Tracey's clinic for pre-school deaf children earlier in 1953.

²⁹ *Year Book* op. cit., note 10, 1962.

³⁰ *Ibid.*, 1959.

³¹ An early example of this is a headmaster from Kenya who returned to train teachers of the deaf.

³² *Reports* (1955) The Institute of Laryngology and Otology and The Royal National Throat, Nose and Ear Hospital.

³³ Fisch, L. (1953) *Hearing Aids, Medicine Illustrated*. pp 362–369.

³⁴ Weir, op. cit., note 27, p 97.

³⁵ Whetnall, E., Fry, D. B. (1964) *The Deaf Child*. William Heinemann Medical Books, London.

³⁶ The dyspraxia programme uses a manual and 450 work sheets to enable speech therapists to assess the speech disorder and plan individual treatment for each child.

relatively new and was set up under the auspices of the Faculty of Neurology of the Royal College of Physicians. It encompassed disorders of speech, hearing, balance and language.

Throughout the last century, hearing was assessed mainly for the information it gave in sorting out middle ear deafness from that of the inner ear or neural pathways. As conservation of hearing assumed greater importance, it became necessary to have more reliable methods of measuring deafness and this necessitated research.

Again, following the inception of the NHS, the RNTNEH changed its clinic for War Veterans to a Universal Deafness Aid Clinic. The first audiology clinic was held in 1947 and by 1950 a monthly distribution of hearing aids was arranged, rising to 400 aids per month in 1950 from 48 in 1948. In 1949, Dr Thomas Littler headed the Wernher Research Unit on deafness set up at the RNTNEH. He was joined by Mr John Ballantyne in 1954 who was closely involved in the development of the Audiological Department. The rapid development of miniature radio valves during the war lent themselves to incorporation into hearing aids.³⁷ The Hospital used the Medresco hearing aids and by March 1950 9 106 had been issued to patients. Aneurin Bevan recognized the importance of the 580 000 hearing aids supplied between 1948–1957 rescuing poor people from a 'kind of twilight life'.³⁸ However, services like this added greatly to the NHS bill.

With advances in physics and technology and the availability of reliable audiometers (an instrument which uses electricity to measure sounds) the battery of tests available was formidable. The standard form of audiograph was initiated at Gray's Inn Road through consultation with the British Standards Institute and a Committee on hearing aids and audiometers was set up. With the increased range of services offered by the Audiology Department, the training of audiology technicians became necessary and in 1951 a £200 grant was made to establish a Society of Audiology Technicians and training courses, through the Institute. When this began in 1952 the boundaries between Institute and Hospital began to blur.

The Otological Investigation Unit (part of the Professorial Unit) was set up in 1962 by Mr K. McLay to promote research into various aspects of

otology. This combined the work of the surgeons (Mr McLay was Reader in Otology) and Mr Henry Shaw an assistant to the Unit, the instrument makers and a team of scientists under Drs David and Ade Pye. Dr Ronald Hinchcliffe came as a senior lecturer into the new neuro-otology unit and later the Chair of Audiological Medicine was created for Professor Hinchcliffe. During this time he published many papers mostly concerning the two areas of research: clinical investigation of vertigo and experimental otopathophysiology plus his studies on the structure of the inner ear. The surgical research was sponsored by Leverhulme. The American Aerospace Research funded work on the physiology of the ear with particular reference to direction finding and localization of sound, vestibular sense organs and equilibration arising from problems of flight in space. Although the results were directed towards the space programme the work on ultrasonics had relevance to the problems of Menière's disease.³⁹ For this work Russell and Gray the technicians devised a complete vestibular testing laboratory including the electrically propelled and electronically controlled rotating chair, electric pick-up amplifying mechanism with electric pen recorders, thermostatically controlled water for caloric tests, electrically propelled and electronically controlled rotating drum for optokinetic tests, table for positioning tests of the vestibular system, coil, meter and reversing apparatus for galvanic tests of the vestibule all designed and constructed in the workshop and laboratory.

The Hospital was the first to develop electrophysiological hearing tests which link the ability of the computer to extract information from the on-going electrical activity of the brain or the inner ear (cochlea) and the auditory nerve. This was initiated by a paediatric surgeon (Mr C. A. Beagley) but refined and developed so that a unit was produced that was portable and affordable and, it was hoped, used in the community clinics.⁴⁰

The trend towards improving communication ability and rehabilitation including the psychological effects of handicap was fully established by 1975 with work on vertigo, Menière's disease and hearing and balance disorders of the elderly. The studies undertaken by Professor Hinchcliffe were world-wide and engendered many papers.⁴¹ Problems of industrial noise, which developed from the studies first under-

³⁷ Scott Stevenson, *op. cit.* note 27, p 126.

³⁸ Webster, C. (1988) *The Health Services Since the War*, vol. 1, Problems of Health Care. The National Health Service before 1957. HMSO, London, p 398.

³⁹ *Reports*, *op. cit.*, note 32, vol. 15, 1964–65.

⁴⁰ Mr C.A. Beagley joined the Hospital in 1965 and retired some 20 years later after pioneering the use of the auditory brainstem test carried out with a portable piece of equipment developed with the aid of a young technician (Robert Royston).

⁴¹ Professor Hinchcliffe's international work (1967) included A neurological, ophthalmological and otological survey of a suburban Jamaican community. *West Indies Medical Journal*, **16**: p 233; Report on Audiology in India, *Sound* (1968) **2**: p 2; Prevalence of ear disease in schoolchildren in Israel, *Sound* (1971) **5**: p 97; Hearing levels in Nigerian ataxic neuropathy, *Audiology* (1972) **11**: p 218; Some geographical aspects of neuro-otology with particular reference to the African, *African Journal of Medical Science* (1982) **3**: 137; Arabic speech audiometry, *Audiology* (1974) **13**: 212; Study visit to Japan, *Report to the Royal Society* (unpublished) (1975); Subjective magnitude of auditory handicap in Thailand, *Journal of the Medical Association of Thailand* (1978) **61**: 452–457. He produced some 150 publications by 1983 greatly widening the information available on audiological problems. Much of his work after 1975 was combined with that of Dr S.D.G. Stephens.

taken with war veterans, now included occupational deafness linked to improvement in hearing aids undertaken by Dr J. J. Knight, and was funded both by the Medical Research Council (MRC) and the Ministry of Pensions.⁴²

The audiological work of Mr Beagley was expanded to include early detection of hearing problems in neonates with the increased awareness of the drawbacks to child development of the late detection of deafness. This was to involve the physicist and scientist more than the doctor as the machines were further refined.⁴³

The Medical Research Council decided to develop an institute for hearing research but, because of bickering amongst the specialists in London, built it in Nottingham. A vital area of otological research on cochlear implants was undertaken for the MRC by Ellis Douek at Guy's Hospital. This research involved the implanting of a small battery of electrodes into the cochlea, which can be beneficial for the totally deaf post-lingual patient but it needs a complex team of otologists, audiological technicians, scientists and teachers of the deaf. At that time most surgeons at the RNTNEH did not believe it should be done and so the development in this area was carried out at the Royal Ear/Middlesex Hospital under Graham Fraser and a major opportunity was lost.⁴⁴ This was an area where long-term follow-up could have been achieved through the Hospital's clinics and would have combined the work of the audiologist and surgeon to the benefit of the patient and Hospital. Audiology had always had the support of the Hospital's Board of Governors, particularly its Chairman, Nan Blofeld,⁴⁵ who gave £1000 for equipment for the neuro-otology clinic and promoted the need for an Audiology Centre. The Department of Health and Social Service (DHSS) funded £2.7 million for the Audiology Centre which was a suite of sound-proofed rooms and laboratories plus workshops. Building was started in October 1980 in Swinton Street adjoining the Nuffield Centre and Hospital but was only opened to patients in 1983 after some delay awaiting the Flowers report.

Lord Flowers' working party was set up in 1979 to consider rationalization of medical education particularly in the specialties.⁴⁶ As the work of the

Audiology Centre included patients from throughout the UK the decisions regarding demographical problems and under-usage of existing buildings was particularly relevant to this new expansion at the RNTNEH. In 1981 the University of London had not come to final conclusions on the Flowers report⁴⁷ and the London Advisory Group (set up by the Secretary of State in 1980) visited all postgraduate hospitals and reported back in 1981. The University of London put this Hospital under the management of the Bloomsbury District Health Authority in the major NHS reorganization of 1982. This made it more community-orientated and from the courses for audiological technicians in the 1950s a complete range of inservice training was developed to educate community physicians, health visitors, speech therapists, psychologists, clinical audiologists and audiological physicians in the new methods of detecting and combating hearing problems.

Nursing

During the war recruitment of nurses had been vital as the number of beds a hospital could keep open depended entirely on the number of nurses it employed. The Committee under Lord Rushcliffe in 1943⁴⁸ had recommended a 96-hour fortnight for a salary of £130–180 per year plus a living-out allowance. With the formation of the Whitley Council the pay and conditions of nurses was standardized throughout the UK. The nurses who had been involved in war work and many school leavers came into the NHS hospitals and by 1949 nurses had received a 30 per cent wage award⁴⁹ and a Government Act to improve their training.⁵⁰ The new syllabus of training issued by the General Nursing Council (GNC) emphasized the preventative aspects of medicine and nursing⁵¹ for all hospitals. The Hospital's School of Nursing had been set up in 1930 with eight student nurses. The numbers increased to 25 a year in the late 1960s but settled back to 10 a year in the 1970s. The School ran courses of six or 12 months for State Registered Nurses (SRN) and six month courses for State Enrolled Nurses (SEN).

Following the war, Miss Wade joined the Hospital as Matron and remained until retirement in 1965.

⁴² J. J. Knight joined in 1963 and was awarded the OBE for his contribution to development in the study of occupational deafness and the development of hearing aids.

⁴³ Professor Kemp's otoacoustic analyser for neonates researched at the Hospital since 1964 finally received a Queens Award in 1994.

⁴⁴ Personal interview with Mr Graham Fraser, 1993.

⁴⁵ Mrs Blofeld was dedicated to the development of the Hospital and persisted with the DHSS to ensure completion of the Audiology Centre. After her death she left a sum of money to the Hospital, the interest of which is used to fund the annual Nan Blofeld Fellowship – a one year research fellowship of £10,000 to a junior doctor, scientist or nurse within the Hospital.

⁴⁶ London medical education. A new framework: report of a working party on medical and dental teaching resources. (Chairman: Lord Flowers). Published as London Health Planning Consortium. *Towards a Balance*. DHSS, London, 1980.

⁴⁷ Rivett, G. (1986) *The Development of the London Hospital System 1823-1982*. King Edward's Hospital Fund for London, p 335.

⁴⁸ Webster, op. cit., note 38, p 23.

⁴⁹ Ibid., p 140.

⁵⁰ Pavey, A. E. (1953) *The Story of the Growth of Nursing*. Faber and Faber, London, p 362.

⁵¹ King Edward's Hospital Fund for London, April 1953, Letter to Hospital on a Management Course for Sisters. Hospital Archives, Gray's Inn Road.

Under her the RNTNEH was approved as a nurse-training school and affiliated schemes were set up with the Royal Free Hospital, still at Gray's Inn Road, and the Hammersmith Hospital. A steady entry of nurses came to the Hospital through the training school and by 1951 no student under 18 was entered for training.⁵² This showed the growing professionalism in nursing as previously the need for nurses was so great that unqualified school leavers were accepted and trained. By 1954 those now training for SRN were expected to have reached a certain standard with the new General Certificate of Education that had been introduced into the schools. State Enrolled nurses had a different syllabus and a different role on the ward. Nursing auxiliaries were also added to ward personnel.

All the candidates for the 1959–61 nurses' examination passed and there was a prize-giving at which their certificates were handed out and a badge was presented to the nurse with the highest marks each year. These were prestigious occasions as they were attended by prize givers who included Lady Dorothy Macmillan in 1959 and Princess Margaret in 1961. Following Princess Alexandra in 1965 the occasion became more 'in house' with either the Minister of Health or one of the Hospital's Governors attending the ceremony. This ceremony ended following certification by the Joint Board Certificate of Nursing Studies instead of the Hospital's School of Nursing.⁵³

During the 1950s there had been a marked improvement in the rate of recruitment of student and qualified nurses at the Hospital. This was linked to the acquisition of attractive accommodation for the nurses in Upper Berkeley Square and Mecklenburgh Square at a cost of £387 000 and a further £37 000 for conversion to suitable quarters. At this time the RCN launched an appeal for funds for its Education Department to widen the range of the nursing role to include industrial nurses and health visitors but did not include specialist nurses. However, by the early 1960s nurses' training had been reduced to three years instead of four and the nurses in their second and third year at the Hammersmith hospital were being seconded for varying periods to a selected number of specialist hospitals including the RNTNE.⁵⁴ This was one of the measures to combat the shortage of nurses that developed as a result of the greater dependence on hospitalization within the NHS.⁵⁵ Most hospitals found recruitment difficult under the NHS and those such as St Mark's

Hospital, found applicants reluctant to nurse the less attractive aspects of medicine.⁵⁶

It was not until 1965 that recruitment became difficult for the RNTNE and one of the Matron's final jobs was to visit Malta and Ireland to recruit nurses.⁵⁷ Although there were some nursing applicants for SEN training from Ireland it is not known whether these were as a result of the recruitment drive or general emigration. The lack of nursing staff resulted in an underspending of £1 500 in 1963/64 and £3 976 in 1969.

In the 1960s new methods were introduced in the form of an intensive care unit on an annexe of Adelina Patti (A ward) because of changing requirements of patient care in the light of advances of treatment in the specialty.⁵⁸ This was a small five bed ward for male/female special care after major head and neck surgery or for acute medical or surgical emergencies. It usually consisted of two to seven days stay and no visiting was allowed unless the patient was dangerously ill and then the visitors were gowned and masked. The nurses were rotated through the special care unit and the general wards to maintain a good mix of interesting cases for them to care for. They also trained in audiological nursing and undertook paediatric work.

In spite of the reform of nursing education by the Hospital's School of Nursing in 1965 the GNC did not approve the Hospital as a nurse-training school for general nursing but did for training for specialty and postgraduate courses. This meant it was the only hospital in the country that was recognized for the specialist certificate for ENT nursing and trained nurses who went on to become sisters. This provided a pool of very able nursing support for the surgical teams in the Hospital.

Following the recommendations of the Salmon Committee in 1972 the role of matron was retitled senior nursing officer and Miss Hamson and later Miss Clinton took this role.⁵⁹ This report on nursing structure was approved by both the DOH and GNC and it moved the training of nurses towards functional management so that new grading structures could be introduced speedily and effectively. However this made the job more administrative and less supervisory of the nursing routines with certainly less patient contact.

The senior nursing role became more administrative than practical as ward sisters resented intrusion into the way they ran their wards. There was also some reluctance to accept a principal nursing officer who was seen as a member of management.

⁵² *Year Book* (1952) op. cit., note 10, p 18.

⁵³ *Ibid.*, 1960 p 19; Miss Clinton who arrived at the Hospital to take up the post of Matron in 1971 did not approve of this elitist system and took the opportunity to drop the 'best nurse' badge.

⁵⁴ Personal communication, Sister Anna Serra, Nurse Tutor at the RNTNE Hospital, October 1994.

⁵⁵ Pavey, op. cit., note 50, p 497.

⁵⁶ Granshaw, L. (1985) *St Mark's Hospital, London. A social history of a specialist hospital*. King Edward's Hospital Fund for London, p 402.

⁵⁷ *Year Book* (1965) op. cit., note 10, p 50.

⁵⁸ *Progressive Patient Care* (1962) *Monthly Bulletin of the Ministry of Health and the Public Health Laboratory Service*, HMSO, London, 21, p 218.

⁵⁹ Personal communication with Miss J. Clinton, senior nursing officer at RNTNE Hospital, 1992.

Selection of staff went under the jurisdiction of the personnel department so that the bond previously built up when meeting nurses at interview and during their work on the wards was lost. This change in role for nurses had a long-term effect on patient care, where more reliance was put on monitoring by equipment than personal observation.

As work in the Hospital had always been divided into two well-defined categories – the routine cases which did not require specialized care, but were usually in large numbers (mainly removal of paediatric tonsils and adenoids which provided good initial cases for the training surgeons), and the neck surgery calling for intensive care, the nurses gained a wide range of experience. Neck surgery dealt mainly with cancer of the larynx, which entailed a laryngectomy operation. The wards were specially designed to ensure maximum personal contact with the nursing staff so that patients could see and hear the nurses at all times to compensate for being unable to speak. A vital part of the recovery procedure was to acquire an artificial oesophageal voice with the aid of speech therapists,⁶⁰ although speech therapy had been a vital part of patient treatment from 1920.⁶¹

The change in nursing during this period was quite dramatic. In the 1950s there was still a link with the tenets of Florence Nightingale with hygiene a high priority and all nurses in uniform, wearing hats and readily taking instruction from the ward sisters and matron. Part of their duties included the washing of bed linen and this was still undertaken by the nurses and matron at this Hospital in the 1950s.⁶² Open visiting was established from 1964, reluctantly at first, together with in-hospital accommodation for mothers although there was a charge to stay with your child until 1981.⁶³

With the influence of the GNC on the School of Nursing's syllabus the nurses became more medically educated and less enthusiastic about the more domestic duties. By the 1980s with greater knowledge required of medical apparatus and drugs and regular training courses, the emphasis had shifted further. Although the good ward sister still took pride in an aseptic and orderly ward this was achieved through the work of the cleaning and ancillary staff. The nurses, with greater emphasis on education⁶⁴ rather than training, became more involved in the administration of the hospital or endeavoured to take over

some of the minor medical duties undertaken by junior doctors. It was the nurses who devised booklets for patients on what to expect at operation in hospital and patient care after operation. A book on *Ear, Nose and Throat Nursing* was also published, written principally by a nurse.⁶⁵ This small Hospital provided an environment to which many nurses returned after final qualification and provided the cancer patients with valued continuation of personal contact over the years of out-patient follow-up that was not available from the junior medical staff, who manned the OPD clinics. The need for the special hospital, apart from teaching and research, was apparent in the clinical work available where the larger numbers of related complicated cases seen enabled many innovations in treatment to be undertaken by the surgeons that, if successful, were then taught to both junior staff and visitors.

The surgeons

The history of the Golden Square surgeons are recorded elsewhere.⁶⁶ In the early years after the war there were changes amongst the surgeons. Scott Brown (1897–1972) resigned after a year's sick leave and set about compiling a textbook of laryngology.⁶⁷ Lionel Colledge (1883–1948), the Golden Square surgeon who had taken a leading part in the amalgamation of the Hospitals, died in December 1948. Although he designed many instruments and published a book, *Cancer of the Larynx*, he is remembered most widely for the Lionel Colledge Fellowship awarded annually by the Royal College of Surgeons. In 1951 George Cathcart (1861–1951) one of the surgeons at Golden Square who was particularly interested in problems of voice died. It was he who financed the first Promenade Concert in 1894 with his friend Henry Wood as conductor of the series.⁶⁸

One of the major changes within the RNTNE Hospital, as with many others, was the introduction of antibiotics following the 1939–45 War. Prior to this, acute mastoid infections were common during the winter periods and often had to be treated surgically.⁶⁹ Diphtheria, croup and tuberculosis were important laryngeal diseases all of which responded to immunization programmes. Syphilis of the upper respiratory tract was still a common presentation at

⁶⁰ Bull and Cook, op. cit., note 19, pp 69–72.

⁶¹ Miss Oldrey was the Hospital's speech therapist from 1934–1950 and was followed by Miss Cook in 1950 who retired in 1994.

⁶² Personal anecdote, John Boxall, histopathologist, 1992.

⁶³ Visiting of Children in Hospital, Fixed hours abandoned directive. *Ministry of Health*, letter dated 12th October 1964. Hospital archives, Gray's Inn Road.

⁶⁴ The European Agreement on the Instruction and Education of Nurses. *European Treaty Series No. 59*, Strasbourg, 21st December 1967.

⁶⁵ Serra, A., Bailey, C. M., Jackson, P. (1985) *ENT Nursing*, Butterworths, London.

⁶⁶ Leighton, S., Hadley, J. 'The History of the Golden Square Hospital' (in preparation).

⁶⁷ Scott-Brown, W. G. (1957) *Otolaryngology*, Butterworths, London. (2nd edn., 1965, 3rd edn., 1971, 4th edn., 1979, 5th edn., 1987, 6th edn., 1994, 7th edn., 1997).

⁶⁸ *Sir Henry Wood. Fifty Years of the Proms*. The British Broadcasting Corporation, undated, p 3.

⁶⁹ Radcliffe, op. cit., note 23.

⁷⁰ Doey, W. (1991) Personal correspondence.

the clinics in the Hospital in the 1950s⁷⁰ in spite of sulphonamides and penicillin.

The greatest aid to surgery was the improvements in general and local anaesthesia. The surgical removal of tumours – both benign and malignant – situated above the clavicle and outside the skull (usually excluding the eye) had never been the sole prerogative of the otolaryngologist (ENT surgeon). According to Charles Heanley (plastic surgeon appointed to the RNTNE Hospital in 1948), in the early days the ENT surgeon's rather haphazard training hindered rather than helped his claim to this area of surgery. The majority received only minimal training in general surgery and little or no experience in plastic surgery: a necessity when reconstructing in the head and neck. Initially the removal of tumours was regarded as the paramount aim of operation but with the increased use of plastic surgery, reconstruction played a major part in the patient's acceptance of 'heroic' surgery. Block dissection and laryngectomy were referred to the plastic surgeon who also carried out quite a lot of repair work following X-ray therapy.⁷¹ These comments by Heanley are not entirely borne out if one considers the publications by surgeons at the RNTNEH on their series of laryngectomy operations.⁷²

Despite individual protestations of their desire and readiness to carry out radical surgery in the head and neck in the early years, the records of the Hospital indicate that only a small fraction of the available patients in this country and abroad were referred here for treatment⁷³ which probably related to the surgeons resident at the time. Once the SAC programme started things changed dramatically, particularly at Gray's Inn Road, where there were more senior registrars located than anywhere else. The increasing division of otorhinolaryngology into otology, rhinology and laryngology, with head and neck surgery, offered the Gray's Inn Road surgeons an opportunity to develop reconstruction skills and there was no need for the plastic surgeon.

The appointment of Professor Frank Ormerod to the Chair of Laryngology and Otology in 1948 had provided the chance to recruit a team of full-time surgical senior lecturers and readers to the Professorial Unit for teaching who were also capable of carrying out innovative surgery. The provision of monitoring equipment, special beds, filtering units and expert nursing staff provided the necessary back up. With the succession of the Chair to Professor Donald Harrison in 1963 improvements in laryngeal cancer surgery, hypopharyngeal cancer surgery and sinus surgery enabled the Hospital to lead the field world-wide. Harrison initiated, in 1964, a scheme

whereby a senior registrar from Gray's Inn Road would go, for instance, to Jamaica for a year and learn uncommon operations.⁷⁴ This scheme was extended to Australia, South Africa and the Far East. Reciprocal schemes later built up for the return of trainees from these hospitals to the Professorial Unit through the British Council.

With the growing reputation of the Hospital the numbers for elective surgery for cancer performed by the Professorial Unit increased from 26 in 1962 to 120 in 1982, with the majority of work on the larynx. The numbers remained constant between 1978 and 1982 (91–120), the operations being limited by operating time available and the number of surgeons.

In spite of chemotherapy, anaesthesia, illumination and instrumentation, Stell (1993) considered that the only new major surgical procedure relevant to upper jaw neoplasms in the last half of the 20th century had been craniofacial resection.⁷⁵ This was an area where the Professorial Unit surgeons continued the pioneering work seeing some 500 patients in 30 years. By 1979 a Head and Neck Tumour Group had been set up for craniofacial problems, including congenital anomalies as well as removal of malignant tumours.

It was recognized that better results were obtained when reparation to the appearance of the patient was performed by the primary operating team as knowledge of the patient pre- and post-operation enabled the surgeon to achieve a closer match to 'pre-op' appearance. The high quality of prosthetic care, after operations such as total maxillectomy, was provided by the Eastman Dental Hospital and refinements were continuously made to improve the post-operative appearance of the patient through osseo-integrated implants. Professor Harrison initiated this collaboration with the Eastman and also Moorfields Eye Hospital. One patient (Christine Piff) wrote about her experiences in *Let's Face It*⁷⁶ following her maxillectomy and orbital exenteration in which half her face was removed as well as the eye socket.

Major changes in surgical techniques came about at the Hospital with the request for patients for surgical treatment of 'social illnesses' such as snoring, which can be life-threatening in rare cases and operations such as the uvulopharyngoplasty was developed⁷⁷ by Charles Croft to rectify such a problem and a regular sleep study laboratory was set up, one of the first in the country.

There were different reasons for surgery: serious, life-threatening conditions at one extreme and 'plastic surgery' for cosmetic reasons at the other. The head and neck surgery of those doctors trained

⁷¹ Heanley, C. A. (1994) Personal correspondence.

⁷² Ormerod, F.C. (1954) The management of cancer of the larynx. *Journal of Laryngology and Otology* 68: 1–27.

⁷³ *Centenary Year Book* (1975) Royal National Throat, Nose and Ear Hospital.

⁷⁴ Mr Bull went initially to learn about the stapedectomy operation and was followed by Mr Cheesman.

⁷⁵ Stell P. (1993) History of Surgery of the Upper Jaw. In *Tumours of the Upper Jaw*, (Harrison, D.F.N., Lund, V.J., eds.) Churchill Livingstone, London. p 11.

⁷⁶ Piff, C. (1985) *Let's Face It*. Gollancz, London.

⁷⁷ Croft, C.B.C. (1980) Sleep apnoea. Editorial, *Clinical Otolaryngology* 7: 214–219.

through the Professorial Unit included Tony Cheesman's craniofacial and skull base surgery and work on vocal fold rehabilitation after laryngectomy⁷⁸ and Peter McKelvie's progress on laryngeal paralysis.⁷⁹ Major head and neck, parotid and thyroid surgery⁸⁰ was undertaken by Omar Shaheen for serious illness and conservative ear surgery as well as the routine insertion of grommets, mastoid and ossiculoplasty to alleviate deafness by Navnit Shah.⁸¹ Stapes surgery, rhinoplasty and facial plastic surgery conducted by Tony Bull⁸² became a growth industry with more people electing to change their appearance through the NHS or privately. The surgeons needed the cosmetic skills to improve the appearance of patients undergoing major facial surgery and some were prepared to supply this plastic surgery on demand, particularly to the private market. Surgeons often combined work at the RNTNE with hospitals such as The London, St Thomas's, Charing Cross, Great Ormond Street and Guy's so cross-fertilization of ideas could be encouraged. This was in comparison with the post-war era when surgeons at Gray's Inn Road were predominantly without appointments at the undergraduate hospitals. This was to ensure that the House Governor could bring in patients from further afield to this Hospital rather than lose them to big undergraduate schools.

The surgeons continued the head and neck surgery and laryngology but Professor Harrison widened the surgical field to include periorbital surgery undertaken with Moorfields Eye Hospital,⁸³ and the greater use of osseo-integrated implants with the Eastman Dental Hospital and enthusiastic use of laser surgery was undertaken by David Howard.⁸⁴

Valerie Lund initiated pioneer work on fundamental endoscopic sinus surgery and fronto-ethmoidal surgery⁸⁵ at the RNTNEH. At the same time the senior lecturers on the Professorial Unit were expected to combine a comprehensive training role for the Institute with their honorary surgical consultancies in the Hospital.

A great number of overseas patients, as well as those from the UK, attended the Hospital for head and neck surgery to remove cancers. In spite of attempts in the 1960s by Professor Harrison to alleviate these with drugs and hydrotherapy⁸⁶ it was found of most benefit to the patient if surgery combined with radiotherapy was the treatment of choice. The strength of the small specialist hospital had always been in the skill of its surgeons and the innovative techniques they used to improve the patient's prognosis and quality of life after surgery. Because most patients came as tertiary referrals: having first seen their GP, then their local hospital and then referred on to a specialist hospital, sophisticated tests, including the latest screening techniques developed by Dr G.A.S. Lloyd were undertaken⁸⁷ to eradicate false diagnoses.

The anaesthetists, who had such a strong role in the development of the Hospital's early reputation, provided a strong team to support the surgeons and Dr J.N.T. Hutton and Dr H.A. Condon were the leading anaesthetists of this period to be followed by Dr Betty Pallot and Dr R.M. Liscombe. In 1975 Drs Enderby and Daly joined the team to enlarge the operating capacity at Gray's Inn Road.

The consultants at the Hospital during the period (1962–1982) were drawn from surgeons who had

⁷⁸Mr A. D. Cheesman's great interest has been in surgical workshops and teaching sessions in the theatre. He inspired many junior doctors to achieve developments in their surgical techniques. His early publications include such aspects as Surgeon's Workshop; intra-vital staining as an aid to parotid gland surgery. *Clinical Otolaryngology* (1977) **3**: 17–21; Changes in otological teaching following analysis of failures in surgical technique. *Clinical Otolaryngology* (1978) **3(3)**: 233–257 but his main work continues to be head and neck reconstruction after surgery and surgical methods to aid voice rehabilitation after laryngectomy on which he has published several papers.

⁷⁹Mr Peter McKelvie's first interest was in middle ear surgery, especially fenestration, and stapes surgery as a house surgeon in 1958. Interest in cryosurgery and the development of cryoprobe and the use of Teflon for vocal fold reparation is attributed to him. He has also published some 20 papers on different aspects of otorhinolaryngology.

⁸⁰Mr Omar Shaheen did his early training at Guy's Hospital and was still part of the apprentice system of walking the wards. He regarded it as invaluable as he learnt by example. His experience in head and neck surgery was gained in Iowa, USA, where he acquired new techniques and procedures and came back to set up a head and neck oncology clinic at Guy's. He was also a member of the new Professorial Unit at the RNTNE Hospital when he returned from the USA and was the first ENT surgeon to become actively engaged in thyroid surgery in the UK.

⁸¹Mr Navnit Shah, an otologist, was interested mainly in paediatric procedures. He helped to set up the Portmann course for microsurgery and otology and oto-neurology in France with Professor Portmann. Mr Shah pioneered the use of videos as a teaching aid. He constantly invented ENT instruments and refined types of grommets in an effort to achieve the perfect device for children.

⁸²Mr Tony Bull initiated the Monday evening clinical meetings for ENT registrars in 1965 and ran them for 15 years. His early interest was in ear surgery but his finest work is in rhinology where he is the leading plastic surgeon for rhinoplasty and septoplasty – with 12 books (and numerous papers) to his name on this branch of ENT. He ran courses on facial plastic surgery through the Institute and utilized the growing use of videos for transmission of his theatre work.

⁸³Harrison, D.F.N. (1980) The ENT Surgeon looks at the orbit. *Journal of Laryngology and Otology* (Suppl 3): 1–43.

⁸⁴Mr David Howard still performs the major head and neck operations within the Hospital combined with a dedicated teaching programme for both undergraduates and postgraduates.

⁸⁵Miss Valerie Lund (now Professor of Rhinology) pioneered endoscopic sinus surgery and revived research into rhinology at the Hospital.

⁸⁶Harrison, D.F.N. (1964) The role of chemotherapy in advanced cancer of the head and neck. *British Journal of Cancer* **18**: 74–97; Harrison, D.F.N. (1967) The use of hypothermia in the intra-arterial chemotherapy for head and neck cancer. *Journal of Laryngology and Otology* **81**: 173–185.

⁸⁷Dr G.A.S. Lloyd's originality in the field of radiology was recognized in 1971 by the British Institute of Radiology and his ongoing research into techniques to assist definition of tumours has been invaluable.

trained at this Hospital and remained until retirement although some like Mr Valentine Hammond combined work at St Thomas's and Mr Martin Bailey at Great Ormond Street with surgery and clinics at Gray's Inn Road. The McKelvies and the McKenzies, fathers and sons, were ENT surgeons at Gray's Inn Road and it was this continuity that was one of the greatest strengths of the Hospital. Another was the acknowledgement of the need for assistance in the development of instruments and the setting up of a department for this in 1948.

Development of instruments

As a specialty, laryngology did not exist at the beginning of the 19th century because clinical examination was impossible. Apart from an early glottoscope invented by Babington of Guy's Hospital in 1828, it was not until about 1854 when the modern laryngoscope was invented by Manuel Garcia (1805–1906),⁸⁸ that laryngeal surgery became possible. This was virtually limited to tracheostomy⁸⁹ but the ability to remove growths from the larynx was achieved and the new method of tissue diagnosis⁹⁰ was recruited to ascertain the composition of these growths. Morell Mackenzie⁹¹ quickly appreciated the importance of laryngoscopy and adapted and devised many laryngeal instruments for the new specialty. He passed on his skills to those surgeons who worked with him at Golden Square including Lennox Browne the founder of the Gray's Inn Road Hospital.

It was inevitable that as the specialty developed the adaptation or invention of instruments would follow. Surgery involved six basic instruments (scalpel or scissors, forceps, retractor, probe, suction tube, needles and holders)⁹² and the RNTNEH surgeons have refined these for their personal use and also adapted others. From the establishment of the Hospital constant research encouraged creativity in all aspects of otolaryngology which resulted in some innovative tools, particularly from Dan Mackenzie in the 1930s. Surgeons such as Lennox Browne, Dundas-Grant, Dan Mackenzie, Ormerod, Colledge, Radcliffe, Asherson and Shah invented many instruments whilst the names of Carmalt Jones, Stuart-Low, Woakes, Maxwell Ellis, Bull and McKelvie are each associated particularly with one. For example, Lionel Colledge, who moved to Gray's Inn Road

following the amalgamation of the two hospitals, was an innovative surgeon and his laryngectomy tube provided a much needed development which is still in use.

Following the Golden Square surgeon Charles Heath's (1856–1934) invention of the anti-gas helmet for British soldiers for World War I an adaptation of the World War II gas mask was developed at the Hospital for tracheostomy patients with an exhaling valve provided on the mask as these patients had lost their normal airway.

Thomas Littler worked on the development of hearing aids and classroom aids for deaf children, particularly the electro-acoustic defined characteristics for the Medresco hearing aids.

Anthony Radcliffe, a surgeon at the RNTNEH in the 1950s, persuaded the Downs Surgical instrument manufacturers to make a light endoscope which was called the Royal National endoscope. The fibre-optic endoscope initially produced in Germany was heavy and rather large. William Doey was interested in the effect of vocal fold palsy on speech and tried to modify a military throat microphone designed for communication in noisy armoured vehicles to make recordings of the sounds evoked from the vocal folds. These investigations were abandoned when electro-myographic tracings became available and although this method was invasive it was more accurate.

Following the inception of the NHS in 1948 the development of instruments was put on a more technical basis and instrument technicians were employed. Robert Russell,⁹³ although not its first, was the most creative and he refined and created pieces of equipment for both the new Professorial Unit and Audiological Medicine Department. He had been an instrument maker with Plessey following war service and wanted to move out of armaments. His precision engineering skills were invaluable to the Hospital. With the introduction of the microscope into ENT surgery⁹⁴ divisions were created between the surgeons who began to specialize still further. One surgeon (McLay) was enthusiastic about microsurgery and for him Russell made angled handle clamp gouges, chisels and holders to enable him to attempt manoeuvres within the ear which had previously only been approached externally.⁹⁵

For the radiologist Russell set up equipment for

⁸⁸ Scott-Stevenson and Guthrie, op. cit., note 27, pp 99–100.

⁸⁹ Harrison, D.F.N. (1987) A century of British otorhinolaryngology. 1887–1987. *Journal of Laryngology and Otolaryngology* **101**: pp 7–13.

⁹⁰ Maulitz, C. R. (1993) The Pathological Tradition. In *Companion Encyclopaedia of the History of Medicine*. (Bynum, W.F., Porter, R.) vol. 1, pp 181–184.

⁹¹ Scott-Stevenson, R. (1946) *Morell Mackenzie*, William Heinemann Medical Books, London, p 33.

⁹² Gliddon, P. E. (1996) *A Guide to Surgical Instruments*. Downs Surgical, Sheffield, p 16.

⁹³ Robert Russell joined the Hospital in 1957 and left in 1982.

⁹⁴ Mr J. Angell James, who had trained at the RNTNE Hospital, was among the first to use the microscope in surgery (Weir, op. cit., note 25, p 238) although it had been used since the early 1960s in the USA.

⁹⁵ Mr McLay was disappointed not to receive the Chair of Laryngology and Otolaryngology which was given to Mr Harrison and took up an appointment as consultant at the Edinburgh Royal Infirmary.

the metered dose injections necessary to X-ray the lymphatic glands of a child. He published a paper on his work with microdevices.⁹⁶ He also constructed crude prostheses from titanium metal and plastic.

Russell was also involved in clinical photography with Mr D.A. Connolly, the Institute photographer, from animation sequences for teaching purposes, created by Mr Shah, to adapting the camera to photograph the inner ear. For the audiologists he devised a complete testing unit with the equipment for the tests and the recording methods for results. This was of great use in the neuro-otological work on Menière's disease and tinnitus. His most longstanding contribution was the adaptation of the American stoma button for the laryngectomy patient⁹⁷ with its associated callipers, a small but vital service to ex-patients.

Following the departure of Russell in 1982 innovations with instruments have reverted back to co-operation of instrument manufacturers like Downs and include the Shaw-Ormerod tube and McKelvie's teflon injection syringe. Dr David Kemp's otoacoustic analyser for the analysis of neonatal hearing through a cochlear echo technique was the last major development of this period and provided a vital piece of hearing test equipment for the new born.⁹⁸

The use of technology and of the technician in audiological medicine and ENT surgery was recognized as being of major value in this Hospital. Both the surgeons and scientists were able to use the skills of an instrument technician like Russell and an electrician like Gray. Apart from Guy's Hospital's early reference to Mr Towne⁹⁹ and the instruments devised at St Marks¹⁰⁰ there appears to be little acknowledgement in the histories of hospitals on this area of expertise. There was, of course, greater reference in journal papers and text books in the illustrations. After the closure of this department at the Hospital, work on surgical tools was transferred back to the instrument manufacturers and the scientists took over the technical work of the audiologists.

The instruments used in laryngology have not changed drastically and the constant refinement has enabled surgery to become less invasive and the practice of attaching the name of the surgeon has enabled us to identify early ENT instruments. Some invented by Victorian surgeons such as Morell Mackenzie and Lennox Browne were not removed from the instrument catalogues until 1970 when microsurgery was becoming more accepted for ENT

work. Some instruments developed for treatments which were discarded such as the Dundas Grant Eustachian self-inflator, may yet see a revival as modern treatment for otitis media with effusion (glue ear) is aeration through the nostrils. The instrument developed for cautery became redundant as the laser took over this role. The close liaison achieved between the surgeons, the technicians and instrument makers encouraged original clinical treatment.

The development of the Institute and its links with the Hospital

Following the Hospital's designation as a post-graduate teaching hospital with its Institute of Laryngology and Otology (ILO) it had special responsibilities with regard to teaching and research. The Governors' Fund, financed by gifts and legacies which were invested, produced an income which was used as the Board of Governors directed. One of the uses of this money was for research, much of which was initially undertaken through the Institute. Similar funds were established or retained in other specialist hospitals.

The ILO was founded in accordance with one of the recommendations of the Interdepartmental Committee on Medical Schools known as the 'Goodenough Committee' of 1944,¹⁰¹ set up to enquire into the organization of medical schools, particularly in regard to clinical teaching and research in the UK. The Committee proposed that, for London, finance should be through the British Postgraduate Medical Federation (BPMF) and created Institutes in all the main specialties attached to special hospitals. These Institutes formed a separate School of the University of London. Not many of the Institutes were as physically tightly knit as the ILO to its combined hospital but the Institute of Urology, linked to St Peter's Hospital, the Institute of Neurology, linked to the Hospital for Nervous Diseases, and the Institute of Dermatology, linked with St John's Hospital for the Skin, were among those set up to provide good clinical material for postgraduate education with the aim to provide facilities for training specialists countrywide and encourage work in the specialty, as part of the University of London.

Once the Institute was set up Frank Ormerod, transferred from the Golden Square Hospital and was given the first Chair of Laryngology and Otology created in 1949 in spite of considerable obstruction

⁹⁶ Russell R. J. (1973) A hydraulic device for the remote control of micro-manipulation: economically constructed. *Biomedical Engineering* 8(1): pp 14–19.

⁹⁷ Mr Russell still makes these stoma buttons which are supplied to patients all over the world.

⁹⁸ Research is still carried on by Robert Royston, the research assistant and Professor Kemp to continually refine and update this equipment.

⁹⁹ Cameron, H. C. (1954) *Mr Guy's Hospital*, Longmans, Green and Co, London, pp 142–143.

¹⁰⁰ Granshaw, op. cit., note 56, pp 125–128.

¹⁰¹ Great Britain, Ministry of Health and Department of Health for Scotland. *Report of the inter-departmental committee on medical schools*, (Chairman: Sir William Goodenough), HMSO, London, 1944.

¹⁰² Apparently there was some resistance to Professor Ormerod from Mr Ottie, the President of the RSM and Sir Victor Negus, the leading otolaryngologist of the era (who had trained at Golden Square) as he was not regarded as an academic.

from the President of the RSM.¹⁰² Ormerod was the only leading otolaryngologist prepared to give up private practice and his post at Westminster Hospital to become a full-time academic. For a salary of £2,500¹⁰³ Ormerod organized the teaching work of the postgraduate school, conducted frequent ward rounds for teaching purposes and was responsible for the collation of clinical records, organization and supervision of research work and the publication of such work. He was also a surgeon with an out-patient clinic and operating sessions and before he retired in 1959 had set up a series of lectures for general practitioners and courses on endoscopy and aural surgery. The first Dean was Mr Gill Carey,¹⁰⁴ a New Zealander.

With a Hospital of some 230 beds (Golden Square and Gray's Inn Road) this made the RNTNE the biggest ENT hospital in the world. The whole of the clinical material available at the Hospital was placed at the disposal of the Institute and this enabled the smooth organization of teaching rounds and theatre teaching sessions as the two organizations were within the same building. The Professorial Unit hoped to provide a head and neck cancer service for the North Thames Region as detection of cancers was on the increase (rising throughout England and Wales by 75 per cent between 1971 and 1981).

The Professorial Unit provided a link between the Institute and the Hospital as its senior lecturers provided free medical services including ward rounds, out-patient clinics and surgery in addition to their teaching commitments. Students who were enrolled at the Institute acted as clinical assistants and dealt with out-patients as part of their training. The Diploma of Laryngology and Otology (DLO) was introduced by the Royal College of Physicians soon after the first World War, and the Fellowship of Otolaryngology (F.R.C.S.) was set up by the Royal College of Surgeons after the second. This enabled the Institute to offer the complete training of the ENT specialist up to consultant standard.

It was Ormerod's pride that guest lecturers from overseas used the Institute for their talks which widened the influence of the ILO by bringing in staff and visitors from other hospitals. Perhaps the highlight of the 1950s was the symposium dedicated to Dr Chevalier Jackson to mark his 90th birthday with speakers from France, Denmark, Sweden and Belgium which took place on 4 February 1956. The Golden Square Hospital had always had a high profile, being the first of its kind in Europe, and so

with its amalgamation with Gray's Inn Road much of its prestige was transferred to this Hospital.

Following the rebuilding period of 1945–50, the Institute's services were consolidated, the clinical photography department was expanded, the hearing aid centre rehoused, and the audiology unit moved to new premises in Gray's Inn Road. A biochemistry laboratory was instituted and a tissue-culture unit established. New construction involved the conversion of the office block of a print works (purchased 10 years before by the Hospital Governors) into a library, pathological museum with a classroom, and an anatomy department and a series of laboratories and workshops achieved by a large grant from the University.

In 1955 and 1956 it was Professor Ormerod who obtained grants from the Leverhulme Trustees to enable an Otological Investigation Unit to be set up and in 1959 the Institute was involved in projects financed by grants including one from the US Air Force on otological research as part of the space programme. Professor Ormerod spent three years following his retirement assembling the historical museum at the Institute but sadly this has now been neglected.¹⁰⁵ The Institute published an annual report from 1951 comprising reproduction of the major papers published in the medical journals that year, written by members of staff, together with reports on the various departments. These continued until 1971 and provided a record of the expanding research work being undertaken by scientists and surgeons within the Hospital and Institute.¹⁰⁶

By 1974 Locally Organized Research Scheme (LORS) funds were available from the Ministry of Health¹⁰⁷ and financed research work of such varied projects as subclinical scurvy, anaesthesia, head and neck oncology, rhinitis, out-patient surveys and the preparation of information leaflets for patients. These funds were used jointly by Hospital and Institute and the principal aims were to get the results of the research published and to incorporate any findings in the practice at the Hospital and to influence the specialty.

Professor Harrison, Ormerod's successor, was also initially skilful in acquiring funds for the new Institute from the University. In 1966 he secured funding for a 15-year lease on premises opposite the Hospital for the growing research requirements. Unfortunately these premises were lost following the Annan Committee report in 1981¹⁰⁸ when the University withdrew its funding for the lease. The

¹⁰³ University of London, *Minutes of Senate Meeting*, March 30th 1949, p 39.

¹⁰⁴ The Deans of the Institute were: Mr C. Gill-Carey 1949–1960; Sir Cecil Hogg 1960–1965; Mr Maxwell Ellis 1965–1976; Professor L. Michaels 1976–1980; Mr R. Pracy 1980–1983; Mr P. McKelvie 1983–1988; Sir Donald Harrison 1989–1990, following which this post ceased.

¹⁰⁵ The London Museum Service of Histopathology Collections in London in 1990 reported that 'Due to lack of any auxiliary technical staff assigned to it, the collections have suffered from poor management and maintenance'. Baycroft, S. (1990) *Histopathology Collections in London*, London Museums Service, pp 16–17. The contents of the museum are now boxed up.

¹⁰⁶ These publications were stopped in 1971 due to the high cost of publication and the report continued in a much abbreviated form ceasing altogether in 1985.

¹⁰⁷ *Minutes*, op. cit., note 6, 22nd May 1974.

¹⁰⁸ It appears that no report has been retained by the University of London or the Institute of Laryngology and Otology on the Annan Committee findings. It is also not listed in the Parliamentary Papers.

Pathology Chair had been given to Professor Friedmann in 1963 and to Professor Michaels in 1972 but disintegration of the ILO pathological services to UCH left only histology remaining within Gray's Inn Road by 1982.¹⁰⁹

Following the reluctant decision of the Institute and Hospital to be part of the new medical school formed by University College in April 1982 the Hospital joined the Bloomsbury District Health Authority. The Hospital and Institute regretted the change of status which had been imposed upon them but recognized that it was essential for the future of the specialty that it should be supported by a full programme of teaching and research which it thought could only be obtained with links with the University whilst retaining the Institute within the Gray's Inn Road site.

The Professorial Unit report for 1981–82 commented on the accumulation of 'soft money' from overseas private patients payments to finance research and buy equipment. There were still a number of lecturers (unpaid) coming from Canada, Australia, Thailand and Jamaica working on the Professorial Unit and then returning to their own countries to set up ENT departments. Also the need was seen to travel to other countries to lecture, both to enlarge the reputation of the lecturer, as well as the Hospital and Institute, and to encourage work within the specialty by surgeons in other countries.¹¹⁰

Among the early achievements of the Institute were new indices for clinical diagnosis, disease and histology and a new labelling system for blood transfusions. The purchase of an electron microscope in 1956 costing £12 000 helped to promote research most of which was pathologically or audiologicaly orientated. Professor Hinchcliffe originated the new specialty of audiological medicine and with Dr Stephens quantified and constructed tests for hearing and balance illnesses. The main achievements were in surgery where improved techniques were developed using the large number of patients with diseases of the head and neck. These improvements were passed on by teaching and publications.

The intra-arterial chemotherapy for head and neck cancers was innovative and only made possible by the co-operation of surgeon (Harrison) with technician (Russell). This delayed the final outcome of the cancer and also reduced pain but was very time-consuming so that inevitably this method of chemotherapy was discarded for these cancers. Greater skill with skin flaps, and gastric pull ups, brought

about by the development of surgical techniques of moving skin to close defects took its place. This improved the healing process for the patient and promised a higher cure rate with less chance of residual cancer cells remaining after surgery.

The facilities available at Gray's Inn Road, particularly the ENT training scheme for nurses, ensured the surgeons had good back up and enabled them to undertake major reconstruction themselves rather than use a plastic surgeon. The patients that came had uncommon illnesses which gave an enormous amount of clinical experience particularly welcomed by doctors from overseas who came for training.

The RNTNE Hospital and the NHS – the effects of Government intervention

The Government repeatedly established commissions into all aspects of the NHS which had major effects on the hospitals. In 1954, only six years after the establishment of the NHS, there was a Committee of Enquiry into the cost of the NHS.¹¹¹ A Memorandum of Evidence was submitted to the Committee by the Teaching Hospitals Association on behalf of the RNTNE and other postgraduate hospitals. The Association laid great emphasis upon the need to maintain freedom and independent management of teaching hospitals if progress in diagnosis and treatment, education and research was to continue.¹¹² In comparison the University of London initially did not bother to offer evidence to the Committee and was surprised to learn the Committee's recommendations that teaching hospitals should be brought under the control of regional hospital boards.¹¹³ This was a misjudgment by the University which, had it initially raised strong opposition to the idea of change of control for the teaching hospitals, might have influenced the outcome of the Enquiry. It can be seen in Hospital correspondence that the MOH were anxious about the costs incurred by the London postgraduate hospitals from as early as 1959.¹¹⁴

The Pickering report in 1962 had large repercussions as it recommended that old postgraduate teaching hospitals and their institutes should be replaced and regrouped¹¹⁵ although the RNTNE was recommended to remain on its own site. This inspired the MOH to plan changes but with successions of Ministers of Health nothing materialized until after the report of the Royal Commission on Medical Education some three years later.¹¹⁶

¹⁰⁹ *Annual Report*, op. cit., note 8, 1981–82.

¹¹⁰ Institute of Laryngology and Otology, *Annual Report*, 1981–1982.

¹¹¹ *Report of the Committee of Enquiry into the cost of the National Health Service 1955-56*, Cmd. 9663 (Chairman C.W. Guillebaud), HMSO, London, 1956.

¹¹² The Teaching Hospitals Association (1954) *Statement of Evidence submitted to the Committee of Enquiry into the cost of the National Health Service*, THA, Lambeth Palace Road, London, Printers Cockayne.

¹¹³ *Report by the Principal for the Year 1963–64*, (1964) University of London, Western Printers, Bristol, pp 32–33.

¹¹⁴ Correspondence between the Ministry of Health and the Hospital, August 1959, RNTNE Hospital Archives, Gray's Inn Road.

¹¹⁵ *Postgraduate Medical Education and the Specialties. With special reference to the problem in London*. (1962) HMSO, London, p 1.

¹¹⁶ *Royal Commission on Medical Education 1965–1968* (1968) (Chairman Lord Todd), Cmnd 3569, HMSO, London.

Early in 1964 the MOH asked the RNTNEH Board of Governors to consider a proposal to be made to the London County Council (LCC) on behalf of Moorfields, the Royal National Orthopaedic and RNTNE Hospitals to be incorporated on the site presently occupied by the Royal Free and Eastman Dental Hospitals on Gray's Inn Road.¹¹⁷ The RNTNE Hospital Board was enthusiastic about this as it was to include the National Hospital for Nervous Diseases (Queen Square), the Hospital for Sick Children (Great Ormond Street) on their present sites to form the Holborn Postgraduate Group. This followed Enoch Powell's suggestion in 1961 that all the specialist postgraduate hospitals should be brought together on one site with their Institutes;¹¹⁸ a suggestion which was unworkable as it would be too expensive and impractical. Instead two groups were set up, one in Bloomsbury and one to cover South Kensington/Chelsea. It was suggested that Great Ormond Street, Queens Square, RNTNE, Eastman Dental and Moorfields Hospital be developed on the bombed site of the Royal Free Hospital in Gray's Inn Road to form the Bloomsbury Group. The second group was the Brompton, Royal Marsden, St Peter, St Paul's, St Philip's, St John's, St Mark's, the Great Portland Street branch of the Royal National Orthopaedic and the National Heart Hospital to form the South Kensington/Chelsea Group.

The Report of the Royal Commission on Medical Education – the Todd Report – published in 1968, recommended that the RNTNE Hospital should be rebuilt in the proximity of an undergraduate teaching hospital (the Royal Free). This caused the Board of Governors to re-examine, in conjunction with the ILO, the Hospital's function in the postgraduate field. A joint report was issued with the Hospital and Institute approved by the Board of Governors and Committee of Management in July 1969 to record their intention to function as a postgraduate teaching hospital on the original site.¹¹⁹ The Chairman of the Board of Governors¹²⁰ ensured that funds were available for research and encouraged the development of a new Audiology wing adjacent to the Hospital to strengthen the Hospital's expertise in this field and extend its building.

By 1976 the Todd report had not been acted upon, so despite all the suggestions, the RNTNE Hospital remained at Gray's Inn Road on its original site because of lack of accommodation for the ILO in the plans¹²¹ presented to them to rebuild the Hospital and Institute on the new Royal Free site at

Hampstead. At this time the RNTNE had eight surgical teams at the two Hospitals staffed by twelve consultant surgeons in addition to the Professorial Unit which was responsible for 40 beds of the 100 beds at Gray's Inn Road.

The establishment of the NHS Authorities and other changes instigated by (Sir) Keith Joseph, Minister of Health, in 1974 resulted in 14 regional health authorities (controlling hospitals, community medicine and GPs). The planning and supervisory day-to-day work was delegated to Area Health Authorities (AHAs). The RNTNE came under the care of the Bloomsbury Health Authority. Third tier health districts were managed by District Management Teams (DMTs). Each district looked after about 100 000–500 000 people. The DMTs took over from the hospitals' Boards of Governors. The Resource Allocation Working Party (RAWP) was set up in 1976 to redistribute resources from the better off to poorer areas. London had been given generous budgets but now the overspend on the current year was to be taken from the next year's grant, so cutbacks were necessary as resources were to be taken from the capital to be redistributed around the provinces.¹²²

The restrictions on cost actually proved of benefit to the doctors. Alternative schemes for training for the junior doctors were established at Gray's Inn Road and rotations began to be set up to allow the trainee doctor to see a greater variety of patients with ENT and head and neck problems. The RNTNE Hospital started a rotation with Brighton in 1974 then included Cambridge, Reading and St George's at Tooting, enabling junior doctors to train with a greater variety of consultants within the specialty and to have postgraduate experience of differing hospital environments.

In the minutes of the Board of Governors meeting on 13th November 1974 it is recorded by the Combined Academic Board and Medical Council that 'This Institute and Hospital recognize the advantage of association with an undergraduate medical school and teaching complex. They look forward to the eventual rebuilding in association with University College Medical School. In the interim they anticipate continued improvement and rationalization of their service and teaching facilities. This would include strengthening of existing links with UCH and the Medical School.'¹²³ There were many plans over the next few years for rebuilding and integration but nothing was achieved.

Apart from the Hospital's uncertainty about the

¹¹⁷ *Minutes*, op. cit., note 6, 1964.

¹¹⁸ Granshaw, op. cit., note 56, p 290.

¹¹⁹ *Joint Report of the Committee of Management of the Institute and Board of Governors of the Hospital*, 18th June, 1969, Hospital Archives, Gray's Inn Road.

¹²⁰ Mrs Nan Blofeld was the Chairman of the Board of Governors from 1970–1978 and was awarded a CBE in 1963 in recognition of her work in the Health Service. She was in the forefront of negotiations to maintain the status of specialist postgraduate hospitals within the health service. *Obituary*, *The Times*, 22nd February 1978.

¹²¹ Reports, op. cit., note 15, 1973–74, vol. 21, p 1.

¹²² Great Britain, Department of Health and Social Security. (1976) *Sharing resources for health in England: report of the resource allocation working party*. HMSO, London.

¹²³ *Minutes*, op. cit., note 6, 1974.

set up of the new hospital there were other problems. The breakdown of negotiations between representatives of the profession and the Secretary of State for Health (Barbara Castle) on the proposed new consultant contract in 1974 resulted in the rejection of the contract. Preservation of the independence of the profession, maintenance of the highest principles of teaching, and the improvement of NHS standards were all called upon and the following telegram was sent to the Secretary of State for Social Services on 2nd January 1975. 'A meeting of senior and junior medical staff of this Hospital unanimously agreed that the contract now offered by the Government was unacceptable and supported the BMA and HCSA call to work to contract'.

By May 1975 the private beds had been reduced from 14 to 12 but it was not the number but the principle which angered the doctors. With severe retrenchment expected in inner London further cut backs were expected. There were ward closures the following year due to shortage of nurses. The biochemical and microbiological units of the Hospital and Institute were transferred to Guy's Hospital because of the speed expected for the pathological results of biopsy. It was now considered better for this to be performed by a large hospital with more extensive equipment. Days were often taken to obtain results with the small staff at Gray's Inn Road which could have been obtained in hours by a larger department but there were no funds available to buy the more sophisticated equipment.

The Hospital responded to the Royal Commission on the NHS in 1976¹²⁴ by re-iterating the arguments set out in the SciCon Report on the London Specialist Postgraduate Hospitals published in 1975.¹²⁵ This had been sponsored by the Committee of the former Teaching Hospitals Association through the King's Fund to publicize the importance of teaching and research in these hospitals and suggested some realignments. Professor Abel-Smith in his Rivers lecture suggested that although the Royal Commission had had a chance to lead public opinion it was largely unsuccessful.¹²⁶

Following the Flowers Report in 1980¹²⁷ restructuring of the NHS in the London area was undertaken to which the Hospital objected. It then sought the support of ENT surgeons who had trained there to present a case for its continued existence. However, by July, Mrs Pauline Ashley,¹²⁸ wife of the deaf MP Jack Ashley, who had joined the Governors in 1974, reported to the Board that the Institute had agreed to accept the Flowers proposal and support the joint medical school with University College. This was in spite of the absence of any rebuilding and so the Institute became part of the

University College of London and under its administration.

Sir George Smart, another of the Governors, voiced concern as the Hospital had the highest bed occupancy for ENT in the country even taken into account the constraints of a teaching hospital. The Government always made poor bed occupancy a criterion for closing a hospital but ignored this factor when other reasons were needed for its amalgamation or closure.

The Chairmen of the postgraduate hospitals met with members of the London Advisory Group who visited all the hospitals before reporting back to the Secretary of State. This Group recommended that Queen Charlotte's, the Royal National Orthopaedic Hospital, the RNTNEH and the Eastman Dental Hospital should be managed by DHAs if and when their Institutes had been incorporated into general medical schools and requested a clear statement from the University of London on the status of the Institutes. This amalgamation would dilute all the specialist input and the Institutes would become University departments with greater subjection to the Provost and Dean of the Faculty. Where the postgraduate hospital was to be managed by a DHA it was requested that a committee should be established to assist it in carrying out its responsibilities for the postgraduate hospitals. Ultimately the National Orthopaedic, St Peter's Hospitals (which included St Paul's and St Phillips's) and the RNTNE were all placed under the umbrella of the Bloomsbury Health Authority.

The members of the Board of Governors of the Hospital were disconcerted by the views of the London Advisory Group as, irrespective of the siting of the Institute, they felt that there was no justification for putting the governance of the Hospital under a DHA. The new Audiological Unit was being built integral to the Hospital, as had the Institute in the past, the desire of the Governors was for the University rather than the DHA to have control. However a Trust deed was drawn up and Special Trustees were appointed to safeguard the Governors Fund monies specifically donated and invested for the benefit of the Hospital. Dr Pauline Meadow, an ex-Governor and one of the new Special Trustees immediately granted £12 000 to the Hospital for research, together with an additional £5 000 specifically for junior staff research work. The Trustees also donated £3 000 from the Governors fund to support the library facilities supplied by the Institute to the medical staff.

When the Provost of University College visited the Institute on 24th September 1980 an 'Open Day' was held in which all the clinical departments were open

¹²⁴ *Royal Commission on the National Health Service*. (Chairman: Sir Alec Merrison), HMSO, London, October 1976.

¹²⁵ Wellman, F., Palmer, P. (1975) (SCICON) *The London Specialist Postgraduate Hospitals - a review and commentary on their future*. King Edward's Hospital Fund for London.

¹²⁶ Abel-Smith, B. (1976) *The Report of the Royal Commission on the NHS*. The Rivers Lecture, (unpublished). Typed copy in RNTNE Hospital Archives, Gray's Inn Road.

¹²⁷ *London Medical Education*. Flowers Report, op. cit., note 46.

¹²⁸ Pauline Ashley (Lady) Member of the Board of Governors 1974-1984. Husband Jack Ashley MP for Accrington had acquired deafness and they were campaigners for the deaf. They went on to set up the Hearing and Speech Trust Charity.

to visitors with special exhibits from the various sub-specialties such as speech therapy and rhinology clinics. The Institute was then invited to join University College but its grant was cut the following year by 20 per cent and the change in Government funding of overseas students further reduced its income. At the same time, the introduction of additional courses, supported mainly by the new Audiological Division, provided some financial assistance to the diminishing Institute.

In spite of varying measures by the Hospital to delay the changes, the Secretary of State accepted the recommendation of the London Advisory Group and after the visit of Dr Dunwoody, Chairman of the new Bloomsbury DHA in December the staff were given notice of their change of employer in January 1982.¹²⁹ Mr Fulcher, House Governor for 30 years, resigned rather than join the new organization in spite of assurances that the Hospital's national role would be safeguarded. The Special Trustees were there to administer the Hospital's trust funds after re-organization but otherwise all administration would be undertaken by the Bloomsbury Health Authority (BHA) under the North East Thames Region through a series of Unit Administrators.

The Region promised to adopt the Board's policy of rebuilding the Gray's Inn Road site to enable the subsequent closing of the Golden Square Hospital which carried out most of the local routine ENT work for the joint hospitals. However, this was not to be as Golden Square was owned by the Secretary of State so the RNTNE had no control over its revenue and the funds of its sale went directly to the Exchequer. The subsequent years under the BHA were a time of constant attrition, and the post-war years until 1983 are now regarded as the 'golden years' of the Hospital's history. During this time the academic side of the Hospital was enhanced by its link with the Institute as members of its medical staff became senior lecturers of the University. Presentations of the variety of its medical work, promoted through publications, overseas lectures as well as the Monday evening meetings, Clubs and the Institute courses, attracted greater numbers of doctors to Gray's Inn Road, particularly from abroad. With its prominence in ENT the Hospital found it easier to recruit doctors and this led to it becoming a very close knit environment which regarded itself as almost indestructible.

The evolution of this Hospital shows that initially state intervention worked well in the years 1948–1982. The relationship between the MOH civil service and the Hospital's House Governors, particularly Mr Young and Mr Fulcher, ran smoothly and there was considerable co-operation with other teaching hospitals through the THA. Finance was available for the new treatments but research appears to have been privately funded, needing the initiative of heads of department to seek it out. It became a major part of the Hospital's as well as the

Institute's function and all junior doctors were encouraged to take part in this area of work and to publish papers.

The Hospital's bond with the Institute was both its strength and weakness. Its strength lay in the Professorial Unit which led the country in teaching, research, surgical innovations and publications in ENT together with the new field of audiological medicine that it had developed. Its weakness was that it refused to move into the new hospital at Hampstead, when the Royal Free was rebuilt, out of consideration of its bonds with the Institute. This at a time when it would have had a strong say in the planning of such a venture. The strength of the Professorial Unit and the plans for the new Audiology Centre kept the Hospital and Institute together as the University had anticipated taking the ILO in-house. It was in fact that the Hospital relied on its leading consultants for professional excellence and their pre-eminence in the specialty to maintain its position, and the fortunes of all major hospitals reflect this. The RNTNE's ability to retain the commitment of its senior medical staff had been a strong factor from its foundation. As can be seen from this history this trait has been reflected throughout other divisions such as pathology, audiology and the nursing and administrative services. Perhaps it is the Hospital's continuity that the patients seek as well as their cure.

The achievements that can be made when a hospital specializes in one branch of medicine and then develops its sub-specialties is one that is not obtainable by a general hospital or even a specialist department of a general hospital. The hospital's doctors are united in caring for their patients and there is a lack of the rivalry often found between departments of a general hospital treating patients with complex illnesses. The knowledge built up over years of experience in one field cannot be replicated by the general surgeon and it is to the specialist that the profoundly sick patients ultimately look for their cure. With continued opposition to the existence of the specialist hospital and Government legislation to enforce change, their numbers have decreased but I believe this history in demonstrating the achievements made by a small specialist hospital whose reputation and influence was world-wide, shows the policies followed since the 1980s to be misguided.

Conclusion

The reduction in small specialist hospitals has been balanced by the growth of small private hospitals, but these have no junior medical staff structure and do not educate their doctors, relying on the hire of doctors on an *ad hoc* basis. At the moment there is a large reservoir of trained consultants that these hospitals can call on but they see their role as providing quick treatment for the patient, without responsibilities or concern for the future of the

¹²⁹ Camden and Islington Area Health Authority (Teaching), format of letter to staff regarding NHS reorganization transfer arrangements to the Bloomsbury Health Authority sent by Personnel Officer, January 1982, RNTNE Hospital Archives.

profession. They usually do not provide funds for training and education.

The Government and the King's Fund made a case for the absorption of the smaller hospitals into the larger units to enable sharing of radiological, pathological and immunological services. Some areas of these services could be shared but the needs of head and neck radiology for ENT and the resultant biopsy analyses and tests would have to be catered for separately as these require very specific investigations. Instead of being part of a general hospital unit with each department vying with others for funds, and responsibility for the patient perhaps being devolved on several doctors within the hospital, it is far better that the specialist hospital remains as a separate unit, obvious to the patient who attends and the general practitioner who refers. The loyalty of the management of the specialist hospital is then funnelled directly to that specialty rather than being diffused through the whole spectrum of illnesses found in the general hospital and the influence of prominent consultants.

In an effort to by-pass the specialist hospital, treatment can often be superficial and underlying pathology go unrecognized. Cancers of the nose and paranasal sinuses can be missed because their symptoms are often very minor eg. blocked nose and stuffiness. The general pathologist frequently fails in 27 out of each 100 cases looked at on the Professorial Unit to identify the correct pathology.¹³⁰ This can be understood when it is realized that the pathology of the nose and paranasal sinuses is greater than anywhere else in the body. If the complaint is trivial it may be of little consequence but it could have disastrous consequences in the case of life-threatening illness, were expertise and experience not there to recognize symptoms of a more complex disease. Conversely, radical treatment can be recommended or be taken by the general hospital eg. a laryngectomy, when greater knowledge of the pathology reveals that it could be treated by non-invasive laser surgery. Therefore a good specialist is needed to make the correct diagnosis.

The function of the hospital is to treat patients who have always preferred to attend the specialist hospitals where they feel the greatest knowledge is available. It does not matter to them whether this specialist treatment was housed in an historic hospital or part of a complex but it is the specialist they seek. Amalgamating specialist hospitals into general hospitals and designating wards to them, gradually reduces their status, their bed numbers and the public's awareness of their existence. This ultimately dilutes the health care of the patient. I contend that the choice of hospitals by patients should be paramount. The small hospital with its top down/bottom up channels of communication was more efficient and face to face consultation more frequent and less confrontational than in large hospitals where decisions are often relayed by memoranda rather than discussion. The number of personnel may be small (at the RNTNE only 350) but this generates a sense of ownership of the Hospital and a corporate identity that is reassuring to the patient.

The aim and use of the special hospital is primarily patient care, postgraduate education and research. The single-specialty hospital movement that was at its height when the RNTNE Hospital was created now appears to have run its course on financial rather than medical criteria. This study shows that the work undertaken at the specialist hospital is indeed special and that unless the patient accepts doctors with lowering standards of treatment, the postgraduate specialist hospital will be needed to train the specialists of the future otherwise British graduates would have to go overseas to look for 'centres of excellence' for their postgraduate training.

Address for correspondence:
Dr Glenice Gould, Ph.D.,
155 Petts Wood Road,
Petts Wood,
Kent BR5 1JX.

¹³⁰ Personal communication with Mr David Howard, Royal National Throat, Nose and Ear Hospital.