## **FULL TITLE:**

### HOW THE COMING OF THE NHS CHANGED BRITISH NEUROLOGY

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### TEXT:

'The days of our years *are* threescore years and ten; and if by reason of strength *they be* fourscore years, yet *is* their strength labour and sorrow; for it is soon cut off, and we fly away'. (Psalm 90:10)

The introduction of the National Health Service (NHS) on the *appointed day*, July 5 1948, profoundly affected all aspects of British medicine and not least neurology. Now, seventy years later, its monolithic structures still remain the

bedrock of British health provision, and as Robin Butler remarked in the 1980s, only the Russian Army and Indian Railways employed more people. It has dominated the entire professional careers of all British-trained neurologists, so much so that it is easy to forget how much has changed since its inauguration, not just in the scientific aspects of neurology, but also in the style and nature of British neurological practice. It is on this latter point that I will focus in this short piece. I will sketch out a picture, albeit impressionistic and incomplete, of what professional neurological practice in neurology was like and what were the pressing issues in these early years, using contemporary quotations where possible. The resulting picture is inevitably selective, and is very much London-based as the article draws heavily from London archives, but does I hope make clear that neurological practice in the country underwent far-reaching changes as the NHS gathered its stride.

The introduction of the NHS occurred against the backdrop of austerity and the raw memory of war. It was a time of rapid social reform with a series of radical measures introduced by both Tory and Labour governments, including for instance, the 1944 Education Act, 1946 National insurance Act, 1948 National Assistance Act and the 1948 Children Act. However, the 1946 National Health Services act was in many ways the most far-reaching, for it put into place uniquely in the world good medical care 'free to all who want to use it'. What Atlee called a very British Revolution, underpinned by the new academic discipline of *Social Policy*, formed the political backdrop and on the appointed day the British Welfare state was born and has endured.

The rise in influence of the state in the personal and domestic lives of its citizens, which had proved effective in the time of war, was unprecedented in peacetime and engendered much controversy. The medical profession were vocal opponents of the NHS and between 1946-1948, the BMA conducted a vigorous campaign against the legislation, culminating in February 1948 in a BMA plebiscite in which only 4,479 doctors out of the 51,042 in the country voted in favour of a National Health Service act (Anon 1948). The doctor's objections were not so much to the idea of universal health care which was broadly supported, but to the nature of the proposed administrative structures and the belief that turning doctors into government employees was an assault on their freedom and their professional status. The fashionable London hospital doctors also feared the abolition of private practice. The objections of many were encapsulated in the Tory amendment to the Third Reading of the bill which stated tersely that it 'discourages voluntary effort and association; mutilates the structure of local government; dangerously increases ministerial power and patronage; appropriates trust funds and benefactions in contempt of the wishes of donors and subscribers: and undermines the freedom and independence of the medical profession to the detriment of the nation' to which some at the time presciently added 'and unaffordability'. Nevertheless, the Minister of Health Aneurin Bevan managed to negotiate his way through the minefield and pushed the bill through having neutered the doctors' opposition by promising amongst other things that the consultants could keep their private beds – stuffing their mouths with gold as he put it. It was a popular bill in the country and passed with a large majority in Parliament (261 votes for and 113 against) and was then enacted into law.

So what was the practice of neurology like at the time? In 1948, there were less than 60 neurologists in the country, almost all located in the major cities and with most in London. The command centre of neurology was the National Hospital for Nervous Diseases at Queen Square, and the style and manner of the hospital's neurologists were highly influential. In a very public way, the neurologists considered themselves the elite of medicine and adopted an attitude of intellectual superiority over the rest of the hospital doctors which permeated their thought and behaviour. The leading, and very influential physicians, Sir Francis Walshe (aged 62 on the appointed day), Sir Charles Symonds (aged 58) and Sir Gordon Holmes (aged 72) were household names in the world of neurology but all were born in the Victorian age and retained a ethos embedded in a style of practice that was becoming rapidly outdated. The next generation included Russell Brain (aged 52), Arnold Carmichael (aged 52), MacDonald Critchley (aged 48) and Henry Miller (aged 34), who were more forward looking and they led a transition but one which was to be painful and slow. Sir Francis Walshe was the most vocal spokesman of neurology at the time and was an implacable and eloquent opponent of the NHS. His views, his brilliant oratory and the power of his prose, are summed up in his letter to the BMJ, entitled in characteristic manner the commonplace mind:

'Any one of us who seeks to grasp first things first amidst the clamour of voices contending on the merits of the National Health Act, and to preserve his equanimity under the buzz of curtain lectures, prosy and splenetic, which *The Times* newspaper presumes to give us, may well feel that we are in danger of

concentrating unduly upon details and of omitting a general diagnosis of the situation which confronts our profession....... What good, in the Greek sense of that word, can the community hope for from government carried on in such a spirit? Do men gather figs of thistles?......There are, I believe, qualities of rare excellence in our profession, though like every human institution it has its imperfections. I submit that this excellence and an unworthy envy of it are the basis of much of the odium to which we are now being subjected in the hope of bending us and our profession to the ends of a retrograde political ideology'.

He continued it would be 'guileless' to suppose that the imposition of the NHS represented anything but

'ruthless and levelling forces that will, if not resisted in time, crush yet other excellences than ours and make the word "democracy" as nauseating and as compact of cynical falsehood in Western as it is in Eastern Europe'. (Walshe 1948)

There was also the issue of income. At the time, consultant neurologists were remunerated almost entirely through their private practices, and performed their hospital duties in the voluntary and teaching hospitals without charge (as "honoraries"). Their small numbers and their concentration in London ensured a good living for the best. The journey from Harley Street to Queen Square was said often to be negotiated in splendid chauffeur-driven motor cars, and Sir Charles Symonds was known for reading the journals and eating his sandwiches in the back of his Rolls Royce with a roller blind separating him from his driver

(Smith) and the outside world. Private practice earnings in London were large and the salaries proposed for NHS consultants (£1836-2970 and with the addition of distinction awards of £500-2500 to 34%), although generous by comparison with the earnings of most doctors countrywide, were far below those of the top London neurologists, as noted by Hinds Howell, another senior Queen Square physician (Royal College of Physicians 1948). Only FMR Walshe, though, when the appointed day arrived refused to accept a state salary and continued to work at the National Hospital as an honorary until his retirement seven years later.

Pickings outside London were never as rich, and as Henry Miller from Newcastle put in 1967, the effect of private practice had dampened the development of neurology in Britain:

'A professional life largely spent in a motor-car travelling between multiple hospitals is incompatible with intensive application to the development of the subject ....we present a somewhat faded daguerreotype, with our black-and-white striped ambience and our flag nailed by historical circumstance to the creaking mast of the part-time appointment. Important though it is to extend the benefits of modern British Neurology to the denizens of the Persian Gulf, it is not enough'. (Miller 1968)

How much London neurology differed in other ways from that in the provinces is unclear, but by 1948 there were also leading figures in such

centres as Oxford, Belfast, Newcastle, Manchester, Birmingham, Bristol, Glasgow and Edinburgh.

On the appointed day, over 1000 voluntary, teaching and municipal hospitals were taken into government ownership. From the point of view of neurology, a key development was the transfer into state control of the National Hospital. The Hospital had been established in 1859 to treat neurological disease in the 'deserving poor', and was a voluntary hospital financed by philanthropy. The voluntaries led medicine in the early 20th century and greatly valued their freedoms to choose and set the numbers of their staff and dictate the range of service they provided. The NHS act put an end to this tradition and thenceforward, progressively and relentlessly, all aspects of hospital strategy became decided by the state. This was a source of much anguish in 1948, but the fact was that the whole voluntary hospital sector was by then in serious financial crisis. Philanthropy was insufficient to meet the hospitals' running costs, and large emergency state subsidies has proved necessary to shore up the whole voluntary system. The National Hospital had itself, on several occasions in the 1920s and 1930s, been on the verge of insolvency and so, although the passing of the system voluntary hospitals was a source of much regret, resistance was futile and there was a sense of relief amongst the board of management that the finances were now the responsibility of the state. The major concern of the hospital, by 1948, was to gain teaching hospital status, and thus retain a board of management, and this the hospital achieved. However, the government also forced a merger of the Queen Square and Maida Vale hospitals (to become the National Hospitals for Nervous Diseases) and in 1950 legislated for the

disestablishment of the hospital's postgraduate medical school which then became an Institute within the British Postgraduate Medical Federation. Both changes struck at the heart of London neurology and were violently opposed by the Queen Square neurologists but they proved powerless to block them. This was the first occasion in peacetime that the state had taken control of neurological policy, but was not the last.

Ward rounds were the major event of the medical week for neurologists, and reflect the style and attitudes of neurology at the time. They were (at least at Queen Square) often fearsome events.

'Gordon Holmes's ward round took place behind locked doors. The loyal Nightingale nurses stood in awe and saw to it that the patients lay motionless on their beds clad in nightdress or underclothes. No one was permitted to read a newspaper lest the rustle prove distracting to the 'Great Man'. Only a jug of water with a glass was permitted on the locker top. In certain cases a vomit bowl might be provided but this was not to be touched except in dire circumstances. The use of a bedpan, however pressing, was not even to be contemplated. Patients, asked to describe the facts of their case to the entourage of doctors, were frequently chastised by Holmes for explaining symptoms in terms of the perceived cause rather than in an objective fashion. Any attempt to be other than passive during examination was another cause for irritation. As Francis Walshe later wrote 'it is facts not amateur interpretations that are needed'. Holmes had the habit of physically shaking his juniors if they failed to live up to his demanding standard. It was not uncommon for him to tear up

the house physician's notes recording the history and examination if he felt these to be substandard. Occasionally when teaching he would grasp a worried student by the lapels of his coat and gently rock him backwards and forwards in rhythm to his instruction' (Shorvon, Compston, Lees, Clark, Rossor 2018).

One immediate effect of the introduction of the NHS was a very large expansion in the number of hospital doctors (a 30% increase in the total number of hospital consultants between 1949-1956 from 4959 to 6490) but over the same period, the number of neurologists was slightly reduced. In fact the attitude and style of the neurologists engendered much hostility from other physicians, and the failure of the specialty to grow was in part due to a lack of support from the profession as well as the government's irritation with neurologists and to the lack of priority neurology was given. Many doctors were unsympathetic to neurology and as Bruce Perry, professor in medicine and later vice chancellor of Bristol University, put it in the College comitia:

'If they looked at the work done by the present neurologist, they would find that his time was completely taken up with a very long waiting list in out-patients, with chronic epileptics and similar cases, most of whom he cannot help at all ... many physicians would not welcome neurologists' (Royal College of Physicians 1954a)'.

Whatever the reasons, a manpower crisis was precipitated, and by the mid-1950s there was even a concern that the specialty of neurology might

disappear altogether with neurological treatment carried out by general physicians.

This highlighted a key issue for medicine at the time, the extent to which specialization should be encouraged, and neurology was at the centre of the debate. An influential Neurology Committee of the Royal College of Physicians (RCP) was set up in 1945 and in their first report, the committee (chaired by AS Barnes from Birmingham; Royal College of Physicians 1945) emphasized that neurology should not be isolated from general medicine and considered that

'exclusive preoccupation with one branch of medicine...inevitably leads to deficient knowledge of the subject as a whole. This in turn promotes an unbalanced outlook and is liable to lead to an artificial division of the subject into a number of water-tight compartments, a separation which ... is not in the best interest of the patient.'

The committee found there were 60 neurologists practising in the country and that the care of neurological patients, particularly with acute neurological disorders and in smaller locations, 'will properly fall to the general physician with an interest in neurology who combines an interest and training in neurology with his general medicine'. The committee supported this and expressed the hope that such physicians will liaise closely with neurologists, and 'set up a relationship which would be to the advantage of both'. The neurologists then perceived themselves primarily as 'physicians' and as a sign of this, until the late 1960s, consultants were appointed to Queen Square as 'physicians' not 'neurologists' and signed their letters thus. With the introduction of the NHS, however, attitudes rapidly changed. By the time of the second report in 1954

(chaired now by Russell Brain; Royal College of Physicians 1954b), the number of neurologists had fallen to 57, 41 one of whom were practicing in London and its surrounds. Consultant posts were not materializing, and senior registrars grew old waiting for an opening, with some of the most gifted joining the brain drain and leaving the country. Despite this, the 1954 committee refused to endorse the appointment of 'physicians with an interest' and offered the first ever service definition of a neurologist as:

'A trained physician with a higher qualification in medicine who has received the necessary special training and experience in neurology and proposes thereafter to devote himself to that specialty. The definition does not include those general physicians who have gained some experience in neurology in the course of their training in general medicine and who include an interest in neurology as part of their general medical practice'.

George Godber, future Chief Medical Officer, put the dilemmas clearly in 1961 arguing that specialization was needed but not to the extent to which that had occurred in America where he had encountered 'vestibulotomists, specialists who did fenestration for otosclerosis'. As he wrote

'If, then, we are facing a progressive increase in specialization, how are we to avoid the division of the care of the patient and the failure of communication of knowledge between the specialists and the rest of medicine? How are we to balance the need to include the stimulus of new specialties in the work of teaching hospitals and at the same time preserve sufficient work on the medical problems of every day to give all-

round experience to the student? These are the great dilemmas of medicine as I see them'. (Godber 1961)

At this stage, too, the Association of British Neurologists, which had been founded in 1933 and hitherto had considered itself a scientific 'club' and had restricted its activities to conducting an annual scientific conference, began to engage in political lobbying. It heavily criticized the small numbers of neurologists and 1956, emphasized the need for specialization and urged, as a first step, the Minister of Health to appoint a consultant advisor in neurology (and the post was created later that year for Russell Brain). A sea change in attitude followed, and the 'physician with an interest' became increasingly viewed as a dinosaur worthy of extinction. This period marked the beginning of sustained pressure by the ABN on the government to provide more specialised neurological services with better spread and equity. A 'services subcommittee' was formed and the ABN replaced the College as the primary lobby for neurology. This pressure eventually resulted in a large expansion in neurologist numbers.

Training was another burning issue at the time. The 1945 RCP committee on neurology had been convened with a primary objective of defining the training requirements for neurologists and recommended: 18 months' whole time study of general medicine after registration; the MRCP Lond., or its accepted equivalent; six months in the whole-time study of pathology, physiology, and anatomy of the nervous system, together with normal psychology; a year's devotion to psychiatry; and 18 months' study of clinical neurology (including a

year's residence in a neurological hospital – ie Queen Square). Quaintly to the modern reader, the report concluded with the remark that all neurologists 'need a degree of leisure which is an indispensable requirement of any one who is to lead satisfactorily the life of a consultant and teach in any branch of medicine.'

## As an BMJ editorial put it:

'This means that the neurologist will be around 27 or 28 years of age before he leaves the embryo stage. At the end of that time he is advised to embark upon a period of foreign travel or of research. A hard apprenticeship indeed, but one that is necessary if the prestige of consulting neurology is to be maintained in international medicine. No discipline has yet suffered from the austerities of its regime, and the best types of anchorite will not be deterred by exacting conditions of entry or pupillage'. (Anon 1945)

The truth is that at the time of the arrival of the NHS, neurologists were indeed seen to some extent as an exotic species living in a gilded cage, well-preened but with very little ability actually to alter the course of any patient's illness. In 1948, apart from the use of antibiotics in meningitis and abscess, phenobarbital and phenytoin in epilepsy, and vitamin B12 in subacute combined degeneration of the cord, there were hardly any effective specific neurological medicines, and only 6% of papers in the two leading British neurological Journals, *Brain* and the *Journal of Neurology, Neurosurgery and Psychiatry*, in that year mentioned any other drug treatments (these were dicoumarol, pituitin and neoarsphenamine). The main role of neurologists was perceived to be diagnostic stamp-collecting

and the identification of rare and untreatable conditions. The 1945 BMJ editorial commented:

'Clinical neurology has for a century been one of the cynosures of British medicine. ... The function of the neurologist in one way differs from that of the practitioners of some other aspects of medicine – e.g., psychiatry, tuberculosis – for the neurologist is a consultant rather than a specialist; he is a judge who sums up and advises as to the nature, origins, outcome of an illness, and the disposal of a sick person, and he is not the purveyor of a particular line of treatment. Hence neurologists have been comparatively few in number, self-selected, highly trained and experienced. If schedules of training should become necessary – and such may of course be deplored – then they must be exacting, eclectic, and extensive'.

This was of course to change with, in the 1950s and 1960s, the massive rise in power and influence of the pharmaceutical industry. By 1970, a whole range of new compounds had been introduced into NHS practice including l-dopa, carbamazepine, valproate, antipsychotics, antidepressants, benzodiazepines, corticosteroids, anticancer chemotherapy and non-steroidal drugs. Neurology had became a therapeutic specialty although it took several decades for this to be fully recognized.

By 1948, neurosurgery was also on the rise. The advances in anaesthesia and in antibiotics combined with the neurosurgical experience gained in war, had greatly enhanced its prestige, and neurosurgery was overtaking neurology in the

therapeutic stakes. Neurosurgeons were 'no longer being content to act as plumber for the physician' (Gask 1935) and there was a resulting power struggle with neurology, which exploded onto the pages of the BMJ in 1945 in a notorious spat between Walshe and Symonds (for the neurologists) and Cairns and Jefferson (for the surgeons) (Walshe and Symonds 1945). The immediate source of contention was the practice at Queen Square for all patients to be admitted under the care of the neurologists and transferred to surgery only after a neurological assessment, and then back to the safety of the neurology ward after the operation. The neurosurgeons resented this and taking their lead from Cushing in Boston ressed for direct admission rights and rights of management of the patients. The arguments was bitter but of course eventually won by the neurosurgeons, reflecting the changing balance of power in the years after the war. Cairns and Jefferson, both ex-Cushing trainees, led the separation of neurosurgery from neurology, and introduction of the NHS resulted in a rapid development of neurosurgical centres around the country, some without neurologists to the dismay of neurologists at the time. There was a strong sense that neurosurgery was leading with neurology trailing behind in the spread of clinical neuroscience into the provinces.

Another threat to the hegemony of neurology in the pantheon of brain disease came from the psychiatrists. Many psychiatric disease had become treatable in the 1940s and 1950s with the advent of anti-psychotic and anti-depressant drugs and new physical treatments, the excitement and the public focus shifted to psychiatry, and neurology was in danger of being sidelined. Many neurologists had a disdainful attitude towards psychiatry and psychiatrists, and disliked

psychiatric patients. Others though were more sympathetic and Sir Charles Symonds held the view that 'the three divisions of neurology', the medical surgical and psychiatric, should come together (tria junta in uno) (Symonds 1970). The 1945 committee on neurology also opined that all neurology trainees should have one year's training in psychiatry, six months in a psychiatric teaching hospital and six months studying mental deficiency, but the College physicians summarily dismissed the idea and so did the ABN. The opportunity to bring the specialties into closer harmony was presented on a number of occasions in those years but was not grasped to the detriment of both specialties.

Perhaps the most significant long-term change in British neurology ushered in during the early years of the NHS, and which was its salvation, was the introduction of the academic unit. By 1948, research in clinical neurology had reached a low ebb. The leadership previously exerted by British neurologists worldwide in clinical research had been seriously eroded, in part due to the war, the small number of neurologists and the exigencies of their private practice. There were no university departments of neurology and no professorial chairs or readerships. The situation in the United States was very different as Elkington, a senior Queen Square neurologist, reported after a fact-finding visit to the USA in 1958:

'The most important difference was in the relative priority given to the activities of a consultant in the university teaching hospital in the two countries. In London, one's primary function is the care of patients and, next in importance, the teaching of one's subject whether this be to undergraduates or post-graduates. Advancement of knowledge and

academic activities for their own sake are very much third.' (Elkington 1958)

With the introduction of state-controlled medicine, a much closer relationship with the universities became feasible than was possible with the voluntary hospitals. Neuroscience also was advancing rapidly especially in the fields of chemistry and pharmaceuticals, and neurology was moving out of the era of clinical description to take on a more mechanistic and therapeutic orientation. The idea of the 'academic unit' engendered much controversy and the attitude of the old-guard of neurology was typified by Walshe's excoriating attack on 'professors of medicine' as the 'last refuge of the destitute'.

'.... but it is clear that the presence in the modern medical school of two categories of teacher, the practising consultant and the salaried academic teacher, opens the door to this disastrous dichotomy....For the cloistered academic teacher life is different. He gets his patients washed and tidied and 'laid out in rows in hospital wards; their importunate and exacting wives and mothers-in-law do not intrude upon his profound cogitations. No unpleasant smells or noises break in on his ordered eloquence; house-physicians and nurses wait on his bidding and tremble at his voice, and all those seeming irrelevances that are so necessary to the balanced comprehension of the patient's total situation are carefully tidied away out of his sight. He does not miss them, for he has never known them. He is rather like the florist who can arrange the plucked blooms, from which the dead leaves and the dirty roots have been removed and the earwigs shaken off, into all the combinations of form and colour his fancy dictates.

I feel sure our clinical professors will greet this simple and faithful picture of their austere lives- with sentiments of happy recognition.'

(Walshe 1947)

Despite his disparagement, eventually, after prolonged internecine squabbling, the first Chair in Neurology in the country was established at Queen Square in 1962, with Roger Gilliatt appointed (although Philip Cloake had been awarded an honorary personal chair in neurology on his retirement from the Chair in Medicine in Birmingham in 1946). There then grew up a category of 'academic neurologists', who split their time roughly equally between clinical practice and research, and fairy rapidly became the leading spokesman of British neurology. This was made possible as the neurologists were salaried by the NHS and for the first time in the history of British neurology did not have to rely on private practice for their income. Many of this new breed of neurologists were dedicated to making the NHS work and there was a sea-change in attitude and style. Led by Gilliatt, none of the university-employed neurologist engaged in any significant private practice, although this too was later to change. Academic centres developed in all the major university towns and again neurology began to flourish and British academic neurology regained its worldwide reputation. As a consequence of this, in the 1980s, subspecialization within neurology also quickly developed, with epilepsy and movement disorders leading the way again stimulated by the university departments.

Neurology thus utterly changed in the early years of the NHS. In summary, in 1948, it was a tiny specialty, largely London-based, elitist in style and manner,

with a reputation for diagnostic stamp-collecting and a glaring absence of treatment. The major neurological hospital was in the voluntary sector and the neurology was embedded in general medicine and in the style and ethos of earlier generations. The neurologists were financially dependent on large private practices, and were ideologically fiercely opposed to becoming salaried and employed by the state. The voluntary hospital movement was ended at a stroke in 1948 and the spokesmen for neurology were initially slow to adapt to the new realities. New attitudes then prevailed and neurology again began to flourish, especially with the stimulus of scientific advances and the academic units. These resulted in the emancipation of neurology from general internal medicine and the evolution of specialization and then subspecialisation. The previous practice of leaving the management of neurological cases at district hospital level to general physicians was rapidly discarded. Neurology regained its academic credentials, university departments were formed and the numbers of neurologists in Britain increased, slowly at first but then rapidly. In recent years there have been remarkable gains in both diagnosis and treatment. How much of this was promoted or inhibited by the coming of the NHS is for others to say, but on balance the overall verdict of the effect of the NHS on neurology, as we enter its 70<sup>th</sup> year, is surely positive. Financial, professional and social crises continue, and probably always will, but patients with neurological disease have had many reasons to be thankful to the NHS. Whether the benefits will outlast the psalmist's predictions is difficult to judge; fourscore years is a long time away.

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