



Editorial

James H. Nicoll (1864–1921)

It is a 100 years, this year, since James H. Nicoll initiated modern day surgery. In 1899 he started to follow up the results of the outpatient surgical treatment he undertook on children at the Sick Children's Hospital and Dispensary in West Graham Street, Glasgow. The Dispensary, itself, had been officially opened in October 1888 as the outpatient department for the Glasgow Hospital for Sick Children which had opened in December 1882 and was a 5 min walk away. James Finlayson, MD, visiting Physician to the Glasgow Hospital for Sick Children, wrote in 1888 that "A very large proportion of the ailments of children, especially at the earlier years, can be better and more economically dealt with in the outpatient department, and a selection of suitable cases, only possible from the large field of outpatients, would make the treatment of cases in the wards more profitable in every sense. In the first years of this Hospital (The Glasgow Hospital for Sick Children) not a few of the children admitted to the medical wards were scarcely suitable for treatment there. With the advance of time more suitable cases have of late been admitted, but with an efficient outpatient department a better selection of cases, i.e. of cases pre-eminently adapted for in-door treatment, could be made, and so the expenditure of the Hospital applied to greater advantage".

The Dispensary was "readily reached by tramway from any part of the city" and would act as a feeder to the main hospital inpatient medical wards. But more importantly the hospital itself could only treat about 500 cases a year by the mid 1880s and there were "always cases waiting admission and at times as many as 50 patients' names appear in the book as anxious for treatment, but not able to obtain admission for want of greater accommodation". But with a Dispensary thousands of children each year could be treated, inappropriate cases not admitted and waiting lists for inpatient or as it was then termed 'in-door' treatment reduced. The number of cases treated at the Dispensary rose from 4000 in 1889 to 7000 in 1890 and to over 10 000 in 1904. Most of these cases were medical with bronchitis, pneumonia, diarrhoea, atrophy, debility, dyspepsia, and gastric and intestinal catarrh the commonest ailments.

In the 1880s in Glasgow poverty was widespread and child mortality high. On average 6735 children under 10 years of age died each year in Glasgow amounting to almost 50% of the total mortality of the city. With this in mind, the services provided by the Dispensary were free of charge with no necessity for subscribers' lines. A statement at the opening of the Dispensary said for treatment "It will be enough that the child is sick and poor".

Initially there were two full-time trained nurses. These two sisters worked independently from the inpatient hospital. They spent their mornings in the Dispensary and their afternoons visiting patients in their homes. One looked after the medical cases and the other the surgical. Three honorary surgeons and three honorary physicians were appointed at the outset. These were all highly qualified and gave their services gratuitously. Nicoll was not amongst these original appointees but took up his post with the second wave of appointments in May 1894 at the age of 30 years.

The son of a Free Church minister, Nicoll was educated at Glasgow University and travelled widely during his career to foreign medical schools even as far away as Moscow. He operated on large numbers of cases at the Dispensary proving that, given perfect technique, hernias, spina bifida, mastoid disease, talipes equinus and cleft palates in suckling infants could successfully be treated on an outpatient basis. Between 1899 and 1901 he undertook for hare lip and cleft palate no less than 406 operations. Chloroform was almost certainly the anaesthetic used for the majority of cases. In 1909 he reported in the British Medical Journal a series of 8988 paediatric surgical procedures (7392 performed by himself) performed at the Dispensary between 1899 and 1908. Nearly half these patients were under 3 years of age and many under 1 year. He stated that "in children under 2 years of age there are few operations indeed which cannot be as advantageously carried out in the outpatient department as in the wards, and, while the number increases with each year, the increase is not great until the age of 5 is reached". Much inpatient treatment Nicoll believed was a waste of hospital resources since "the results obtained in the outpatient department at a tithe (tenth) of the cost are

equally good". He also felt that the concept of a child resting peacefully in their cot in hospital following surgery was a "pretty idea, rarely obtainable". Consequently "young children, with their wounds closed by collodion or rubber plastic, are easily carried home in their mothers' arms, and rest there more quietly, on the whole, than anywhere else".

Much of Nicoll's early work at the Dispensary was done in less than ideal conditions. Although the Dispensary was purpose designed, initially hot water was not available on tap and electric light was not installed in the surgical room until the beginning of the 20th century. The Dispensary, due to its success, soon became inadequate in size and work began on an extension in 1896. This allowed the introduction of aural, dental and ophthalmic services. It also gave the directors of the Dispensary the opportunity to build a first floor lecture theatre. Professor Leishman, (Regius Professor of Midwifery, Glasgow—not his son the pathologist) had stressed at the opening ceremony of the Dispensary the enormous opportunities the facility offered for the education of medical students in common conditions. At last teaching facilities were available. Nicoll, when Professor of Surgery at Anderson College, was a popular teacher with the students who contested for the front seats at his lectures. At the Dispensary he not only taught medical students but also nurses. In 1897, distraught by the lack of teaching aids, he personally donated a "student's set of bones" and "a manakin" to the Dispensary. Later, in 1903, he paid £10 to enable electric light to be installed in the lecture room.

Nicoll strongly believed that mothers and children should not be separated. Thus in 1904 he rented a house, paid for out of his own pocket, near the Dispensary where mother and child could be accommodated together after surgery and visited by the Dispensary staff.

Although he did not undertake adult day surgery, in his work at the Western Infirmary he sought to reduce the post-operative period in bed to under a week.

Nicoll was a bachelor who devoted himself to his

work. He was popular amongst his colleagues, nurses, patients and the public of Glasgow, exhibiting great charm and grace. As Assessor to the Rector of Glasgow University he worked with President Poincaré of France when he took up this post. When Poincaré returned to France he awarded Nicoll the cross of the Legion of Honour.

Nicoll died on 16th August 1921 following a period of ill health consequent upon dysentery acquired during his war service in France in 1918. He was 56-years-old.

The concepts he espoused were radical in their day yet accord well with the principles of day surgery 100 years later. He believed that children, where possible and after careful selection, were best nursed at home by their own mothers. Prolonged post-operative bed rest was not only not feasible with children but also harmful. By removing cases from the inpatient wards to the outpatient Dispensary, treatment would not only be of higher quality but also more cost effective. Equally the reduction of pressure on inpatient beds would reduce waiting lists for admission. He believed that the nurses undertaking outpatient treatment should be separate from those dealing with inpatients and that there was benefit in outreach nurses visiting certain children post-operatively in their homes. Like the directors of the Dispensary, he believed that the outpatient surgery unit was a valuable teaching resource. He developed teaching facilities in the Dispensary both for medical students and nurses. His house providing accommodation for mothers and children is surely the forerunner of modern hospital hotels and the concept of the free-standing Dispensary being a 'feeder' for the inpatient hospital is one that is at present being replicated around the world.

James Nicoll, great technical surgeon, radical thinker, popular teacher and charming gentleman was truly the founder of modern day surgery.

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