Title: The History of Jackson Rees Department of Anaesthesia.

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ABSTRACT BODY:

Legend has it that Dr G Jackson Rees was sent by Prof TC Gray to 'sort out the children' for Miss Forshall in about 1950. Up to this time paediatric surgery had been a branch of general surgery, the bulk of it occurring in the many small hospitals scattered about the city (John Baggot, Stanley, the Northern, the Southern, Sefton, Bootle, Walton) and, short of Ramstedt's procedure for pyloromyotomy, neonatal surgery was a desperate exercise with a high mortality.

By 1960 there had been dramatic changes for oesophageal atresia/tracheo-oesophageal fistula. There were now specialist paediatric surgeons performing major surgery in the neonatal period There had come about a sea change in neonatal anaesthesia writing in 1950, Rees described his technique for neonatal anaesthesia using the Ayre's T- piece.

Writing in 1960, Rees describes a rather different technique for neonatal anaesthesia:
Awake intubation for true neonates, otherwise intravenous induction followed by hyperventilation with oxygen and nitrous oxide and intermittent injections of a muscle relaxant.
The application of 'Liverpool Technique' to adults would seem to predate its use in children by some few years.

The department in the 1950s seems to have consisted of two anaesthetists, Dr G Jackson Rees and Dr A Stead. Dr Stead had joined the Department as a 'Fellow' having previously been an SHO at Sefton Hospital, and he became a consultant in 1956. They worked at both the RLCH at Myrtle Street and the Alder Hey Hospital in West Derby, but they achieved their real fame from their work with infants with congenital heart disease. Dr Rees and Dr Stead provide the input to anaesthesia and intensive care and so inevitably came to work principally at the Myrtle street Site.

Alder Hey Hospital at this time was administratively quite separate from the Royal Liverpool Children's Hospital at Myrtle Street. Dr Gordon Bush had come to Liverpool as a Senior Registrar and had subsequently been appointed as a consultant to Alder Hey in 1964. The following year he was joined by Dr DA Nightingale to learn at first hand about the 'Liverpool technique'. A multiplicity of individual drugs and techniques were used, in sharp contrast with the complete confidence shown by Jackson Rees as this straightforward technique was applied to the whole spectrum of children and surgical conditions. Two years in Philadelphia, a true centre of excellence at that time, gave Dr Nightingale wide experience but did nothing to dissuade him from the usefulness and practicality of Rees' ideas when he returned as Alder Hey's second Consultant Anaesthetist in 1965.

The layout of the hospital was very different at this time. There were two main operating theatres more or less at the centre of the hospital (first floor, in what is now the executive area) with an ENT theatre downstairs while

the neonatal surgical unit had its own adjoining theatre. The consultant paediatric surgeons at this time were Mr PP Rickham, Mr H Johnson and Mr Neil Freeman. Junior anaesthetic staff were made up of the registrars on the Mersey rotation (including a Senior Registrar) and 'SHOs' appointed just to do paediatric anaesthesia. Over this time there were also a succession of Senior Registrars seconded from other regions, many of whom would go on to become distinguished paediatric anaesthetists in other parts of the country (Gordon Patterson from Oxford, Peter Morris and Alan Shaw who were to go on to posts in Manchester, and Lunn who would go to Cardiff)

The Intensive Care Unit at Alder Hey started up at about 1963-4. It originated as what would now be termed a high dependency area of ward D2- two cubicles accommodating 4 incubators used for the treatment of respiratory failure in infants. Initially the two doctors concerned were Dr Saul Keiden and Dr Jackson Rees but in 1964 the Respiratory Fund at the Hospital received a donation of some £10,000 from the British Oxygen Corporation who installed a piped oxygen supply to ward B2. Children on B2 were admitted under Dr RS Jones, who had been appointed to the post of Consultant Clinical Physiologist. At that time it was envisaged that this unit would be used particularly for clinical research of Asthma. Gradually the unit acquired a more varied role with the increasing use of mechanical ventilation. Anaesthetists (and particularly Dr Gordon Bush) were involved with the day to day running of the unit from the outset, and a junior anaesthetist Dr JB Owen-Thomas became the first full-time junior doctor appointed to work on the nascent ICU. Dr Owen Thomas went on to work on the ICU and within the Institute of Child Health but was to die at a tragically young age. .

Over the years Dr Bush took over as the Administrative Consultant for the PICU. An 'admin' session apart however, the consultant input to the intensive care unit was largely unrecognised, each of the consultants having their theatre sessions as their 'principal' duty.

Meantime, the fame of the Liverpool department continued to increase. Dr Jackson Rees, for such an eminent man, published relatively little, but he travelled widely as an invited speaker to conferences the world over, promulgating the 'Liverpool Technique' and bringing back ideas and innovations- probably none more important than returning from Australia with Stocks' idea of avoiding tracheostomies in children's intensive care by using pvc endotracheal tubes for longer periods of mechanical ventilation. Dr Bush too, travelled the world, having periods as visiting professor in the USA, Australia and South Africa.

Meantime the department underwent further expansion, with the addition of further Consultant Anaesthetists in 1969 (Dr TR Abbott) and Dr Elena Vivori in 1974.

Academic recognition had come about a little earlier. In 1967 Paediatric Anaesthesia obtained the status of being a department in its own right within the University of Liverpool and Jackson Rees was appointed as Director of Studies, a title which was subsequently bestowed on Dr Gordon Bush (1982-87) and then Dr Nightingale before Dr PD Booker became Senior Lecturer in Paediatric Anaesthesia within the University Department of Anaesthesia in 1993

Through the 1970s then, the department consisted of six consultants, three (Drs Rees, Stead and Abbott mainly based at RLCH Myrtle Street and doing mainly Cardiac anaesthesia and three (Drs Bush, Nightingale and Vivori mainly based at Alder Hey). Dr Rees continued to have a session at Liverpool Royal Infirmary (politically useful) but otherwise all the anaesthetists worked exclusively within paediatrics. Dr Rees retired in 1983, to be replaced by Dr PD Booker who had recently returned to Liverpool from a years study at The Hospital for Sick Children in Toronto, a path which was to be followed by several other Alder Hey Consultants. Dr Abbott left Liverpool to move to whole-time Cardiac anaesthesia in Southampton, being replaced by Dr Isabel Boyd and then Dr Mary Cunliffe joined the department in 1986 working between Myrtle Street and Alder Hey. Roger Thornington joined soon after (having been 'head hunted' from Red Cross Hospital in Cape Town by Dr Gordon Bush who had been lecturing in South Africa). Angela Murray joined the Alder Hey branch and then Dr

AR Bowhay joined the Department on the retirement of Dr Gordon Bush in 1990.
There were considerable physical changes to the hospital. A new theatre block was built at the south end of the Hospital corridor (Forshall Theatres)
There was a major change to the provision of paediatric services in the city with the transfer of Cardiac Surgery from Myrtle Street to Alder Hey in 1970'S. By this time there were two Consultant Paediatric Cardiac surgeons, Miss Roxanne McKay and Mr Roger Franks, (Mr Hamilton having moved to Edinburgh as Professor of Cardiac Surgery) and Cardiac Surgery had its own purpose built intensive care unit (O2) to accommodate a throughput of 400 cases each year. At the north end of the hospital, the general intensive care unit continued to be housed on B2 with some 10-12 beds.
Staffing patterns at this time (late 80searly 90s) were interesting. There were two resident registrars each day. One, (the 'cardiac 'registrar) was based on the cardiac ICU and was mainly responsible for the hour-by-hour ventilatory management of the patients on O2, under the direction of the Consultant Cardiac anaesthetist on for the day. He or she also prepared the drugs for the (following) days cardiac operations. The 'general' registrar, as now, had to run the emergency theatre list. In addition they were expected to liaise with the Senior Registrar responsible for the general intensive care unit through the day so that they could take over resident responsibilities for the PICU when they had finished the emergency theatre work. The general Consultant Anaesthetist for the day had overall responsibility for both the theatre and general PICU patients at opposite ends of the hospital.

Currently our Department has 23 Consultants, 04 Fellows and 10Trainees.

Conclusion: We introduce our hospital and the Jackson Rees Department of Anesthesia as having a first class reputation for saving the lives of sick children and a proud history of medical achievement and clinical innovation.