

## **The Birth of Intensive Care in Newcastle, Australia**

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In 1955 a woman was admitted to Royal Newcastle Hospital with complications of a non-medical gynaecological procedure. After two days she developed clinical tetanus. Initial management with barbiturate sedation did not control her convulsions satisfactorily. After 18 hours the decision was made to manage the patient using patient curarisation, intubation and ventilation. This intervention was based on the then-recent reports by Lassen and colleagues of management of polio victims in Copenhagen. In Australia, however, long-term ventilation with curare was virtually unknown.

Initially ventilation was by hand. The senior anaesthetist (Ivan Schalit) then assembled a mechanical ventilator from anaesthetic apparatus, personal household appliances, and his son's Meccano set. Using this apparatus, and solving problems encountered as they occurred, the patient was then ventilated for twenty-five days.

Tracheotomy was performed on day two, and maintained for fifty-one days. Sedation, Intravenous fluid balance, nutrition, humidification, respiratory care, and management of the primary pathology (sepsis and tetanus) all had to be dealt with. After ventilatory support was weaned, "respiratory reeducation" was a particular challenge.

Initially, many of the hospital's Doctors felt the treatment was an inappropriate intervention in a hopeless case. The ultimate success attracted wide attention, and was reported in the Medical Journal of Australia. It came to be seen as the 'birth' of Intensive Care in Newcastle.

Ivan Schalit was the first Staff Specialist anaesthetist in Australia, and established the Newcastle Department of Anaesthesia. Warren Gunner, his first registrar, went on to have a notable career at St Vincent's Hospital in Sydney, establishing the Intensive Care unit there, and working closely with Sir Harry Windsor in cardiac surgery. Bill Cummings, the junior Doctor of the team, became Professor of Orthopaedics at St George Hospital in Sydney. Recently Warren Gunner found some photos of the legendary "Meccano-Set Ventilator", and was interviewed by this author.

Today, we understand more, have better drugs and equipment, and routinely manage cases much more physiologically challenging than this one. But while we 'see more' it is by standing on the shoulders of Giants.

Gunner BW, Cumming WJ, Schalit I. The Employment of Anaesthetic Principles in the management of a severe case of tetanus. Medical Journal of Australia, 1956;43:404-406