

Experience with the Glostavent in Vietnam

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Than Hoa hospital is a 620 bedded general hospital in the city of Than Hoa, 250km south of Hanoi in the Socialist Republic of Vietnam. It is a referral centre for the surrounding area serving a population of approximately 3.7 million people in the Than Hoa province and the adjacent regions of Eastern Laos. The hospital has 10 operating rooms, a recovery room with 10 beds and a 14 bedded Intensive Care Unit. Approximately 15,000 operations are performed in the hospital each year.

The hospital acquired its first Glostavent in 1999 from the charity Medical and Scientific Aid for Vietnam, Laos and Cambodia. Further Glostavents including several by the British Embassy have been donated over subsequent years and there are now a total of 7 machines in use in the hospital, 5 in the operating rooms and 2 in Intensive Care.

Compressed air from the concentrator rather than oxygen has been used as the driving gas for the ventilator as the hospital does not have a piped oxygen supply and cylinders are large, bulky and inconvenient to use especially if the ventilators have to be moved from room to room.

The Glostavents have been used successfully on all sizes of patient although the relative insensitivity of the tidal volume adjustor has meant that it has not been used extensively for children under 5 years of age.

Because of its simplicity and reliability, it has proved very popular with the anaesthetic staff and is now used almost exclusively for patients requiring general anaesthesia. At a conservative estimate, the Glostavent has been used to provide anaesthesia for at least 25 patients per day for a period of over 3 years and a total of approximately 20,000 procedures have been undertaken without mishap.

Throughout the same period and under the directorship of Dr Le Ba Hung, it has been used as a ventilator in the Intensive Care Unit for an average of 2 patients per week and an estimated total of 300 patients (Fig 1). The longest continuous period of ventilation was 5 days. Servicing and maintenance has been undertaken by the engineering department in the hospital workshops under the direction of Mrs Dao Thi Thuyet (Fig 2). During this entire period, outside help has only been required on one occasion. At all other times, Mrs Thuyet and her staff have had sufficient skill and expertise to provide total maintenance for the equivalent of 21 Glostavent years.

In a part of the world where the supply of oxygen is both expensive and erratic, an



Figure 2: Mrs Dao Thi Thuyet, Head of the engineering department of Than Hoa Hospital, Vietnam.

anaesthetic machine that can produce its own oxygen is seen as a great advantage, not only for its convenience, but also for its economy. The saving on the cost of oxygen alone has been calculated to be in the region of \$10 per machine per day.

Electrical power failures occur in our hospital 2-3 times each week and manual ventilation of patients is necessary until power is restored. The ease with which it is possible to change between controlled, assisted and spontaneous ventilation with the Glostavent is seen to be a great advantage.

As the director of the hospital, and together with my colleagues, I wish to express my thanks to the charity, Medical and Scientific Aid for Vietnam, Laos and Cambodia, for the donation of the Glostavents and in particular to Dr Madelene Sharp of Coventry, England for making the donation possible. My thanks are also due to the British Ambassador for his generous help. With the planned extension of both our Intensive Care Unit and recovery room, a request for a further 10 Glostavents has been made. As a result of our own experience to date, we are optimistic that this request will be met on both safety and economical grounds.



Figure 1: Dr Le Ba Hung with Glostavents in ICU at the Than Hoa Hospital

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More information about the Glostavent can be found at www.glostavent.com. It is manufactured and marketed by Diamedica in the UK (www.diamedica.co.uk) from whom more information can be obtained (info@diamedica.co.uk)