

ABSTRACT

A survey of the literature dealing with the administration of oxygen with respect to the historical development and techniques used in different types of institutions, countries and environments has been presented.

Against this background, a descriptive study of the administration of oxygen at the University Hospital of the West Indies (U.H.W.I.) in terms of methodology and cost-efficiency was carried out. It was found that U.H.W.I. spends \$38,000 per month in purchasing and transporting oxygen, and the purchase and transportation rates are increasing exponentially.

The soaring costs are only aggravated by the high incidence of wastage occurring throughout the hospital. The most frequent cause of wastage is leakage from defective equipment. However, the greatest rate of measured wastage (in volume per unit time) is due to inadequate supervision of oxygen equipment. It was revealed that the total rate of oxygen wastage due to poor supervision approximately doubles that being wasted because of leakage from outlets.

Based on such findings, it is suggested that stringent steps be put in force to minimise wastage as a result of defective equipment or unsatisfactory administration at the bedside. Simultaneously it is advised that the Hospital Administration reinforce the modes of quality and quantity control already in existence.

It is proposed that special consideration be given to the investing in techniques and equipment which in the long term, would prove to be cost-saving. Examples of these are the routine use of compressed air or industrial oxygen and the institution of a "Modular System" such as a compressor-concentrator-storage tank system or any modification of this to meet the specific needs of the Hospital.