

Intensive Care Unit in the University Teaching Hospital, Lusaka.

A Retrospective Study for the year 1975.

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SUMMARY

A retrospective study was made of cases admitted to intensive care unit at U.T.H. at Lusaka in 1975. Injury accounted for the majority of admissions and deaths. Head injury alone or in combination with other injuries was the commonest cause of admission and death.

This study is hoped to help those who will work in the new intensive care unit and also to help those hoping to open similar units in Zambia.

INTRODUCTION

Intensive care unit is essential in most hospitals to cater for a few critically ill patients, who demand more than can be offered in a conventional ward. With the adoption of the idea of progressive patient care it becomes imperative for any hospital with more than 400 beds to have one (Wylie and Churchill Davidson 1972, and Robinson 1966).

The criteria for admission to such units should be that the disease process is reversible and the patient is critically ill and will need constant monitoring and may require the use of artificial machines or drugs to support a vital system such as a Respirator. (J. Alfred Lee and R.S. Atkinson 1973).

In the University Teaching Hospital, Lusaka, which has over one thousand beds, there is a convert-

ed area used for intensive care. It has six beds and is separated by a wall partition from a surgical admission ward, which has 24 beds. The nursing staff is shared between the two areas. The administration of the unit is the responsibility of the anaesthetists but at times Surgeons admit patients as they see fit.

The care of the patient in the unit is shared by the anaesthetist and the Surgeons or Physician in charge of the patient. In this preliminary study the case notes of the patients have been studied paying attention to the reason for admission, management, and causes of deaths in the unit.

No follow up was made after the patient had left the unit.

MATERIAL AND METHOD

A retrospective study of the available records of patients admitted to the intensive care unit in 1975 were studied. Particular note was made of the reason for admission, management and outcome in the intensive care unit.

A total of 226 patients were admitted, in the I.C.U. in 1975. This excluded the month of July 1975 where no record was available. Taking the average monthly admission to be 20, a total of 246 patients were probably admitted in the whole year of 1975. The keeping of records is poor in this hospital

and worse still in the keeping of case notes where in some cases information found was not complete. In some case sheets several days pass without any note being entered.

RESULT

Excluding the month of July 1975 a total of 226 cases were admitted to intensive care unit in 1975.

The majority of patients were admitted because of injury (140) Table 1. This is followed by post-operative cases (56) and then medical cases (30). The patients were admitted to the unit for monitoring, airway maintenance and respiratory support. General nursing care was continued as usual. The average stay of patients in the I.C.U. was three days. The patient who stayed longest was in the unit for 29 days. Twenty four patients had tracheostomy and 25 patients had endotracheal tubes inserted. Patients who had endotracheal tube for more than five days, were tracheotomised.

A total of 26 patients had intermittent positive pressure ventilation (Table II).

Of the 226 patients admitted to intensive care unit a total of 70 died and the majority died from head injury (Table III).

TABLE I

A. Injury	
Head injury alone	85
Head injury with other injuries	23
Multiple injury excluding head	17
Abdominal injury alone	5
Spinal injury	5
Chest injury alone	4
Others	1
Total of injured	140

B. Post Operative	
Abdominal operations	20
Chest operation	10
Spinal operation	8
Tracheostomy	4
Head and neck operation	8
Others	6
Total	56

C. Medical Cases	
Neuromuscular diseases	7
Cerebrovascular accidents	8
Poisoning	4
Meningitis	3
Tetanus	2
Others	6
Total	30

TABLE II

I. Tracheostomy	
Multiple injuries	4
Bulbar paralysis	3
Airway obstruction	3
Chest injury	3
Spinal injury	3
Head injury	3
Laryngectomy	2
Others	3
Total	24

II. Endotracheal intubation	
Head injury	12
Cerebrovascular accident	4
Multiple injuries	4
Meningitis	2
Others	3
Total	25

III. Intermittent positive pressure ventilation	
Head injury	10
Multiple injury	3
Meningitis	3
Cerebrovascular accident	2
Others	6
Total	24

TABLE III
Deaths

I. Injury	
Head injury alone	34
Head injury with other injuries	8
Multiple injury	5
Other injuries	3
Total	50
II. Post Operative	11
III. Medical	9

DISCUSSION

From the figures obtained it can be deduced that on average twenty patients are admitted to the intensive care unit every month. Thus the total admission for 1975 can be deduced as 246 patients. Trauma contributed to the majority of cases admitted 63% and the majority of them had head injury 45%. This is similar to the figures of E. Hoffman (1975). Most of the patients who had head injury died. Out of 108 patients with head injury 42 of them died (42%). This mortality is similar to that of Gawish et al (1976). They reported on cases of operated head injuries. Most of the trauma cases were due to road traffic accidents which contributes to a lot of morbidity and deaths in Zambia. Postoperative cases were the second common cause of admissions and deaths in the intensive care unit. This is to be expected as those who were admitted postoperatively had undergone major operation or were very sick before the operation. A small proportion was due to mishaps during the operation and anaesthesia.

This figure contrasts markedly to those of western countries, such as Britain. In Britain the majority of cases admitted to such units are due to cardiac, respiratory and renal failure. In a report by Robinson (1976) only 5 out of 168 (3%) admissions were due to head injury and cerebrovascular accidents. Medical cases contributed to various assortment of cases making a total of 30 patients.

Comparatively very few cases were due to poisoning. The death rate is rather high 70 out of 226 patients (32%). In the Robinson series 38 out of 168 died (22.6%). Since this is a new unit and far from ideal, this figure is bound to improve. The average length of stay for the patients in the intensive care unit was three days which is usual in most centres. The patient who stayed longest in the unit spent 29 days. This was due to difficulty in weaning from the ventilators and tracheostomy.

REFERENCES

1. Gawish H. Siddiqui. M. Gore S.B. "An analytic study of 33 mortal head injuries" *Medical Journal of Zambia* (1974) 8. 44.
2. Hoffman E. "Mortality and morbidity following road accidents" *Annals of the Royal College of Surgeons of England* (1976) 58: 233.
3. Lee J.A. and Atkinson R.S. *Synopsis of anaesthesia 7th edition* P. 867.
4. *Planning Unit report No. 1 "Intensive Care"* (1967).
5. Robinson J.S. "Design and function of an intensive care unit" *British Journal of anaesthesia* (1966) 38: 132.
6. Wylie W.D. and Churchill Davidson: *practice of anaesthesia 3rd edition* P. 527.