Multiple Trauma – Patient Factors and Duration of Hospital Stay

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Trauma remains one of the major health hazards of modern time. It is a major cause of death in developing and developed countries. Because of its uniqueness and complexity of patients with multiple injuries, trauma nursing has evolved in its own right as a specialized field of nursing.

The trend in hospital based care is towards moving the patient to least experience locations in which desired therapeutic outcome can be achieved (Cornock & Serward, 1997). Serious injuries require long periods of experience nursing care and treatment.

Patient and family recovery is heavily dependent on the skills of the nurse as care giver, communicator, collaborator and co-ordinator throughout cycles of trauma (Cardona, 1994). Many of the trauma victims are discharged with mild to moderate deficits (Shepperd and Illiffe, 1996).

Costly hospital care has led to an increased emphasis on outpatient care, thereby decreasing admission and length of stay (Brett, 1992). Identifying the factors which increase the hospital stay of patients with polytrauma and providing adequate nursing intervention can reduce the duration of hospital stay.

The study was intended to identify those factors which increase the hospital stay of patients admitted with multiple trauma.

Materials and Methods

Descriptive approach was adopted in the study and population included patients admitted with multiple injuries in the General Surgical wards of Medical College Hospital, Trivandrum.

Observation of patients, interviews and case sheet analysis was done. The sample size was 500. The patients were divided in the two groups of 250 each. Those with shorter duration of hospital stay (< 9 days) as Group I and those with long duration of hospital stay (≥ 9 days) as Group II.

'Z' test was used for assessing the significance of difference between mean of two sample groups.

Findings and Discussion

In majority of cases, prolonged hospital stay was necessitated among patients with various factors.

The table specifies the distribution of patients based on morbidity factors found statistically significant. Among 19 factors observed, 13 factors were proved statistically significant.

Weakness, fracture, presence of urinary catheter, presence of ryles tube, malnutrition, unconsciousness, systemic illness, pain, traction, paralysis, psychiatric problem, surgical emphysema and wound gaping were factors found to be statistically significant. They were considered factors associated with increased duration of hospital stay.

The mean duration of hospital stay was found to be 11.58 day. More number of patients had 9 - 12 days duration of hospital stay when all patients in Group II were considered. The factors proved significant were wound infection, presence of stitch, presence of plaster slab, chest drainage, pressure sore and hemothorax.

An effective trauma care system can minimize factors which lead to extended stay of patients. Trauma nursing is an important aspect of trauma care. If adequate nursing measures are taken, the ef-

Distribution of patients based on factors identified which were significant

Patient factors	Number	Percent	P value
Weakness	80	16	$P > 0.05$
Fracture	111	22.2	$P > 0.01$
Urinary catheter presence	80	16	$P > 0.01$
Ryles tube presence	59	11.8	$P > 0.01$
Malnutrition	17	3.4	$P > 0.01$
Unconsciousness	43	8.6	$P > 0.01$
Systemic Illness	29	5.8	$P > 0.05$
Pain	51	10.2	$P > 0.05$
Traction	45	9	$P > 0.01$
Paralysis	17	3.4	$P > 0.01$
Psychiatric problem	6	1.2	$P > 0.01$
Surgical emphysema	15	3	$P > 0.01$
Wound gaping	4	0.8	$P > 0.05$

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