



ISSN Print: 2394-7500  
ISSN Online: 2394-5869  
Impact Factor: 5.2  
IJAR 2016; 2(8): 831-833  
www.allresearchjournal.com  
Received: 15-06-2016  
Accepted: 16-07-2016

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## **A study to assess the level of risk of pressure ulcer among bed ridden patients in selected tertiary hospital, Kancheepuram Dist, India**

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### **Abstract**

**Aim:** The aim of the study was to identify the level Risk of pressure ulcer among Bedridden Patient in ICU, Neurosurgical, Ortho wards.

**Methods and Materials:** A Descriptive survey design was used for the present study and data was collected structured demographic questionnaire and Water low Risk assessment Scale. Using Purposive sampling technique 40 samples were selected. The collected data was analyzed by using descriptive and inferential statistics.

**Results:** The study results indicates that Majority 48% were at low risk,40% of them were at risk,7% of them were at High risk and 5% of them were at very high risk. The study result shows that there was a significant association between age, gender, occupation and level of risk of pressure ulcer at 0.05% level. No significant association was found between level of risk of pressure ulcer and educational status, type of family and Monthly income.

**Conclusion:** The finding of the study revealed that there was nearly 52% of the bedridden patients are at the risk of developing pressure ulcer. The study result insists that screening of risk of pressure ulcer among bedridden patients has an importance for the prevention of complications.

**Keywords:** Risk of pressure ulcer, bedridden patients

### **1. Introduction**

A patient is any person who receives medical attention, care or treatment. There are a number of problems that affects patient, who have to spend prolonged periods in bed. This list is not exhaustive but the most frequently uncounted problems includes muscle spasm, constipation, pressure ulcer, and Deep vein thrombosis <sup>[1,2]</sup>. Maintaining skin integrity is important. A few client populations are thought to be at greater risk of developing pressure sores because of immobility like Orthopaedic clients with fractures, the elderly with femoral fractures and client in nursing settings home settings. Studies in the latter have shown that the incidence of pressure ulcers increases with length of stay.

Preventing pressure ulcers has been a nursing concern for many years. In fact, Florence Nightingale in 1859 wrote, "If he has a bedsore, it's generally not the fault of the disease, but of the nursing". Others view pressure ulcers as a "visible mark of caregiver sin" associated with poor or non-existent nursing care. Many clinicians believe that pressure ulcer development is not simply the fault of the nursing care, but rather a failure of the entire health care system-hence, a breakdown in the cooperation and skill of the entire health care team (nurses, physicians, physical therapists, dieticians, etc.) <sup>[7]</sup>. the use of support surfaces is an important consideration in pressure redistribution. The concept of pressure redistribution has been embraced by the National Pressure Ulcer Advisory Panel (NPUAP).

In India, pressure ulcer incidence in patients undergoing surgery is reported to be up to 29.5% common known risk factors for pressure ulcer development include compressive and shearing forces which are unnoticed. Untreated bedsore can lead to serious complications. It is the responsibility of the health care provider to prevent the bed sore in cost effective manner. Once bedsore developed, it is difficult to cure. So the investigator interested to identify the risk of pressure ulcer among bedridden patients in hospital setting.

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## 2. Materials and Methods

**2.1 Research approach:** The approach used for this study was Descriptive approach.

**2.2 Research design:** Descriptive survey Design.

**2.3 Setting:** The study was conducted in ICU, Neurosurgical and Ortho wards of selected Tertiary Hospital, Chennai.

**2.4 Sample:** 40 Bed ridden Patients.

**2.5 Sampling technique:** Purposive sampling method.

### 2.6 Inclusion criteria

- ✓ Bed ridden patients (ORTHO, ICU) for after 6 hrs.
- ✓ Age group between 20-60 years

### 2.7 Exclusion criteria

- ✓ Patient who are critically ill.
- ✓ Unconscious patients and patients in ventilator only female students.
- ✓ Boy students

### 2.8 Data collection instruments

- ✓ Demographic Data
- ✓ Observational Check list

### 2.9 Description of tool

The data collection instrument consists of 2 sections which included socio- demographic characteristics and Water low Risk assessment Scale to assess the risk of pressure Ulcer.

### 2.10 Data Collection Procedure

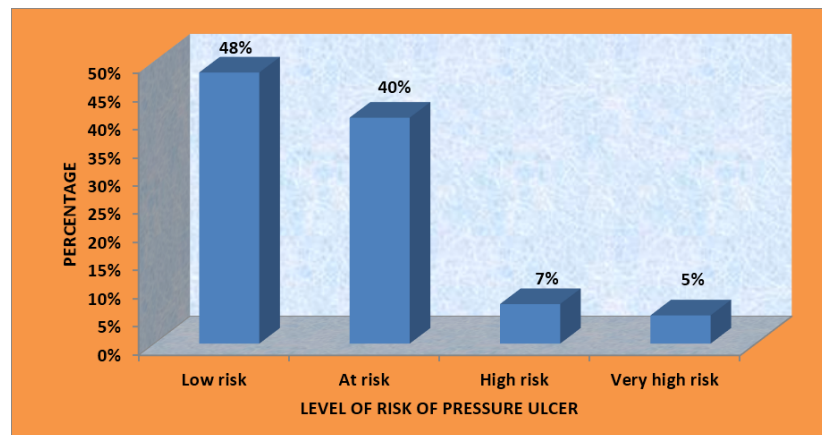
The investigator obtained written permission from the Dean, Chettinad Hospital And Research Institute, Chennai. The

investigator introduced him to the respondents to ascertain their cooperation for the study. Purposive sampling technique used to select sample. After obtaining the consent from samples, questionnaire was given to the patients. The investigator explained the patients regarding how to respond to the questionnaire. The questionnaire included their basic demographic and social characteristics, family characteristics, Pressure ulcer risk factors. The data collection procedure concluded with risk assessment with Water low Risk assessment Scale and finally the investigator thanked the patients for their cooperation. The data collection procedure was continued till the sample size reached 40. The collected data analysed by using descriptive and inferential statistics.

## 3. Results

A total of 40 bedridden patients were included in the study. The study results shows that majority (52%) of respondents were in the age between 51-60 years, 20% in the age between 41-50 years, 18% in the age between 21-30 years and 10% between 31-40 years. In gender, shows that majority 28 (70%) of respondents were male and 12 (30%) were Female. In accordance to educational status, majority (67%) of respondents has no formal education, (20%) had Degree and above, (10%) had High school and (3%) had higher secondary education.

The study results indicates that Majority 48% were at low risk, 40% of them were at risk, 7% of them were at High risk and 5% of them were at very high risk. Nearly 52% of the bedridden patients are at the risk of developing pressure ulcer. The study result shows that there was a significant association between age, gender, occupation and level of risk of pressure ulcer at 0.05% level. No significant association was found between level of risk of pressure ulcer and educational status, type of family and Monthly income.



**Fig 1:** Percentage distribution of sample according to their level of risk of pressure ulcer

## 4. Discussion

The study results indicates that Majority 48% were at low risk, 40% of them were at risk, 7% of them were at High risk and 5% of them were at very high risk. Nearly 52% of the bedridden patients are at the risk of developing pressure ulcer.

A prospective study was conducted to assess the risk of bedsore, included 100 patients from medical and surgical wards. Data were collected on admission, and subjects were followed up at regular intervals. The Waterlow pressure ulcer risk assessment tool was completed and patients were

stratified "as not at risk," "at risk", "high risk", and "very high risk". Out of 100 patients studied, 20% were at risk, 10% were assessed at high risk, and 7% were classified as at very high risk for developing a pressure ulcer. Necessary preventive measures were taken (posture change, specialized beds/mattresses, nursing care, nutritional input, etc) for those patients at risk of development of pressure ulcer. Four of 7 patients (57.1%) who were at very high-risk developed pressure ulcer as compared with 2 of 10 patients (20%) categorized in the high-risk category within a period of 2 weeks [15]. Both the Study result reveals that the bedridden

patients were at the risk of developing pressure ulcers that needs early attention from health care Professionals through early risk assessment to prevent complications.

### 5. Conclusion

On the basis of conducted research it can be concluded that screening of risk of pressure ulcer among bedridden patients has an importance for the prevention of complications. Further, there is a need for effective interventions that target reduction of risk of pressure ulcer at the beginning which can be achieved through successful prevention strategy based on early mass detection of risk and education of young nurses, patients and the primary care takers.

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