



CODEN [USA]: IAJ PBB

ISSN: 2349-7750

INDO AMERICAN JOURNAL OF  
**PHARMACEUTICAL SCIENCES**

<http://doi.org/10.5281/zenodo.1293949>

Available online at: <http://www.iajps.com>

Research Article

**A MULTIDISCIPLINARY CLINICAL RESEARCH GROUP  
FOCUSED ON UNDERSTANDING AND IMPROVING PATIENT  
OUTCOMES AFTER CLINICAL ILLNESS AND SURGERY**

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**Abstract**

**Objective:** Use of multidisciplinary procedure steps in the hospital is very important to avoid any kind of unwanted events and happening in hospitals. It does not only prevent patients from any kind of suffering but also helps them to enhance their recovery process. It also impacts the hospital reputation and increases the satisfaction level of patients. The multidisciplinary techniques have the wide spectrum of their application. The areas of the application range from a pharmacy and operation theatre. The understanding of the recommended needs of patients' outcomes after passing through the treatment of critical illness stages and the need of its improvement is a highly focused area for the multidisciplinary clinical and research groups

**Patients and methods:** For the multidisciplinary research focused groups, outcomes after critical illness and surgery are the main subject of focus. In their activities, observations, analysis, conclusion, and results are obtained for the quality of the hospital, its facilities and the outcomes of the long-term patients. The network of these activities is operated on the local, national and international level for valid and authentic results.

**Results:** While performing these activities the field that fields that are considered include multidimensional designs for dealing with the various improvement project of intensive care units and research methodologies for long-term patients' outcomes.

**Conclusion:** To conduct these research, analysis, and data is collected from various valid surveys conducted for patient outcomes research. Along with the different kind of surveys, statically analysis is done for longitudinal data evaluating all kinds of risks factors in the multidisciplinary activities.

**Purpose of study:** The research is being made to evaluate the importance of multidisciplinary teams and research groups in enhancing the patient outcomes

**Key words:** Multidisciplinary teams, research groups, staff teams, patient outcomes

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Please cite this article in press Hafiz Muhammad Adnan Haider et al., *A Multidisciplinary Clinical Research Group Focused On Understanding and Improving Patient Outcomes after Clinical Illness and Surgery*, Indo Am. J. P. Sci, 2018; 05(06).

**INTRODUCTION:**

The term of multidisciplinary teams and research groups related to the hospitals involves the participation of all staff members. The effect of the staff members is observed in the treatment procedure and pace of recovery of patients. The staff being discussed here includes from the lowest to the highest member of the hospitals. For sake of multidisciplinary clinic research, more focus is on the teams s compare to individuals[2]. It is so because in case of team the levels and the strength of communication are strong not only among the team members but also within the different teams. The concept of team formation increases the contact among the specialists and staff members and enhances the level of corporation do the same reason the staff members ranging from an assistant to the medical specialists and appointed in form of groups at the different points like intensive care unit (ICU), emergency rooms (ER), operation room (OR) etc.

It is a fact that the primary factor that in the job satisfaction is directly link to the output and performance. Similarly, in case of clinics, the job satisfaction of the staff members increases when the patient outcomes improve and the duration of the hospital stay decrease. As discussed above it is all due to teams' cohesiveness [3]. So there is a direct relationship between job satisfaction and team cohesiveness. So with the staff teams, the administrators of the clinics become sure about staff teams performance that ensures the good of the patients and best for the institution.

Teamwork in the respiratory care unit: In the respiratory care unit, the constant care is provided by the staff team members without concerning that either junior or any senior officer is availing service. In some cases there comes the issue of the junior vs. senior staff member. A survey was conducted to check is there any difference between the patient outcome with the senior and junior staff member respectively. It is obvious that the senior staff members have the high level of training and experience as compared to the senior's members of the staff. In both cases, the weaning protocol was provided by the hospital administrators to the staff members. To check the outcomes of the patients, different criteria were sets. These criteria include mortality rate if patients, weaning rate of patients, determination of average ventilators days of patients, return of patients to ICU and development of secondary diseases to the patients. All facilities provided to the senior and the junior staff members were equal in strength, concentration, and magnitude. In short, in presence of all kind of formalities and

facilities, there was no difference in the patient outcomes being dealt with the senior or the junior staff members. The patient outcomes were not increased and were not decreases as a result of this survey [4].

**PATIENTS AND METHODS:**

In intensive care unit, the Multidisciplinary also deals with the nutritional routines of the patients admitted. This research deals with multidisciplinary nutrition team with the nutritional activities of the patients and their outcomes in the national hospital.

**Samples**

The study populations are the patients that are admitted to the ICU department of the hospital from April to October of 2017 and from April to October of 2018. To collect the data on an actual basis, the patients taking the food orally were excluded from the research analysis.

From April to October 2017, a diet plan was created by the nutrition specialist under the supervision of attending physician of ICU. But this routine was not followed in the next year. In the research analysis of 2018, rounds and visits were arranged by multidisciplinary nutrition team. This team consists of pharmacists, clinical nutritionists, nurses, insensitive and other staff members. The rounds were conducted on the weekly basis to approach all patients in ICU while availing the services of nutritionist. All clinical data was received from the past records of the hospitals [5].

Nutritional data: Duration of nutrition provision: The time of nutrition provision and care was recorded from the old data when patient is admitted in ICU. Total time of patient stay is also noted.

Adequate nutritional facilities: By using an authentic and valid nutritional guide, the availability and adequacy of different nutrients like calorie and protein were determined.

Nutritional outcomes: To calculate the nutritional outcome, three variables were used. These variables are the total weight of the body, quality of serum albumin in the body and net lymphocyte count in patient's body. The sum of these three variables in calculates and high scores indicate the poor nutritional level in the body [6]. To get the valid results, the nutritional scores were concluded before and after the stay in ICU.

Statistical analysis: In the research, the statistical analysis was done through the SPSS statistical

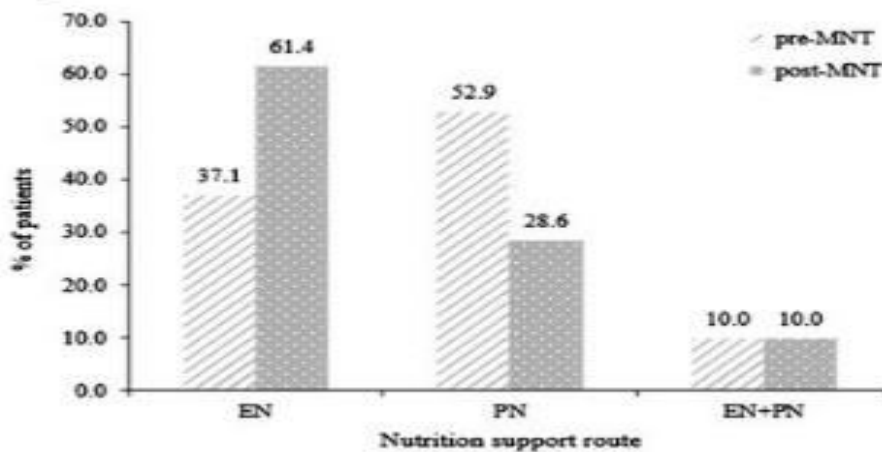
version. In the analysis, the p values are of magnificent importance.

### RESULTS:

**Patient enrollment:** There were 140 patients that were included in the research analysis. Among these patients, 57% were male while the remaining were females. The average age of the patients was about 23.5 kg and their average age was 65.5 years. The albumin level in the body of the patient was 3.3g/dl and the lymphocyte count of the patient was cell per mm<sup>3</sup>. The average duration of stay in intensive care unit was a 15.3 days and mortalities rate was 14.3 in ICU. The sum of all parameters of the analysis concluded to be p=0.225.

**Practically indices conclusion:** No noticeable difference was noticed between the total duration of provision of nutritional care and support and from the time of initiation of nutritional support. The nutritional care and support as recorded for two groups these two groups are pre and post multidisciplinary nutrition teams. The nutrition provision duration was 90.1 and 94.3 for pre and post MNT groups respectively. The values of p calculate was 0.161. The duration of initiation of nutrition support was 1.51 days and 1.32 days for pre and post MNT groups respectively [7]. The p-value was 0.06

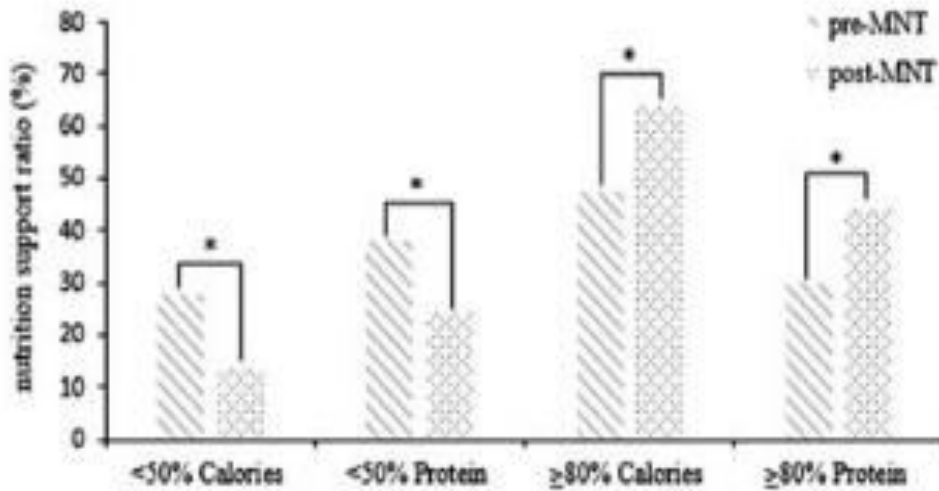
**Figure 1**



**Adequacy of nutrition:** Like the previous analysis, two groups were considered in this analysis too. These groups were pre multidisciplinary team and post multidisciplinary team. The number of different nutrients in the body was considered. The main focus among the nutrients was on calories and protein. For the analysis, the goal day was achieved. For this day the target of the provision of 80% was selected. The aim of provision of 80% of the nutrients to the patients of intensive care unit was

targeted. The main nutrients selected for this target were calories or the protein. A below goal day was also selected in which the total amount provided to the patients of intensive care unit was below 50% [8]. The ratio of the goal achieved day was higher for the post multidisciplinary nutrition team group as compared to the pre multidisciplinary nutrition team group. The ratio of the pre-MNT group was less than post-MNT group p >0.05.

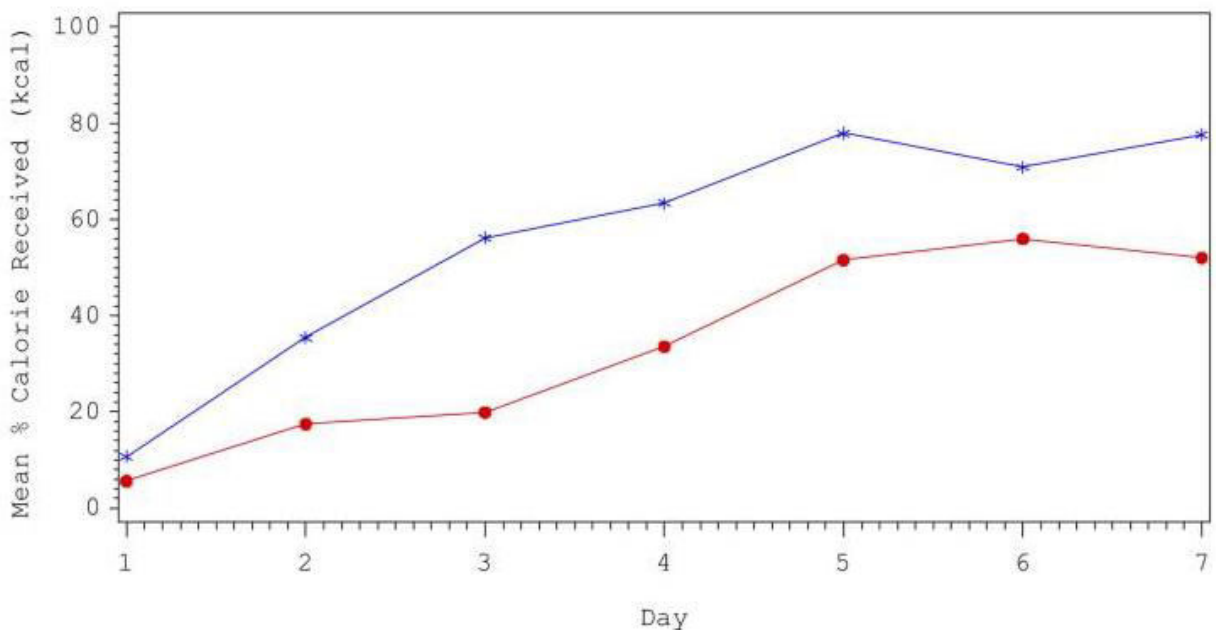
Figure 2



Now the same research was move beyond the limits of the ICU. As a subject of research, comparison of standard care and ICU was done. This research used the parameters of days instead of months. The comparison was made for the energy received during the intensive care unit and standard care. The patients in the ICU were 25 and patients in standard care were 25. This comparison research was made on the basis of the amount of calories and protein received by the

participants of both groups. The standard value of calories is 30kcal/kg and that of protein is 1.2 g protein/kg. Patients of both groups have almost the same need of calories and protein. In this research, the presence of another disease likes respiratory disorders, lungs disorders etc has been kept in mind.

The result concluded for this research are shown in the following graph



**DISCUSSION:**

There is almost no difference between the need of nutrients and calories for patients of both patients of ice and standard care. The research done by the multidisciplinary teams and researched focused groups show that there was no noticeable difference between the total duration of the nutritional care and initiation of nutritional care. In case of the adequacy of nutrients, patients of standard care and ICU have same need but ICU patients have more availability of nutrients

**CONCLUSION:**

In a multidisciplinary team, the importance of teamwork in the hospital different department cannot be ignored, the patient's outcome multiply by the teamwork of staff members. For the recovery of patients in the ICU, it is important for them to provide a balanced and adequate amount of nutrients. The team of staff at every level is essential to increase the patient outcome and job satisfaction [9].

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