



RESEARCH ARTICLE

AN INTERVENTIONAL STUDY TO ENSURE TIMELINESS OF NUTRITIONAL ASSESSMENT AMONG SPINAL CORD INJURED PATIENTS AT TERTIARY CARE HOSPITAL IN INDIA

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ABSTRACT

In order to ensure compliance to nutritional screening & its documentation as nutritional assessment form within 24 hours of patient's admission, a prospective, longitudinal study was conducted wherein medical records of patients completing 24 hours of inpatient stay were audited and compliance rate was calculated. The study was conducted in two phases (Pre & post intervention). During pre intervention phase, existing methodology of conducting nutritional screening was studied i.e. nutritional screening was done by dietitians and documented in patient's medical records, followed by receiving from assigned nursing staff for the concerned patient. Intervention was introduced in which, in addition to earlier method of nutritional assessment the documents were kept in the box file available at nursing station by the dietitians, instead of filing them in the patient's medical record and two way receiving was taken (nursing and dietitian both took receiving from each other). In this method the nursing staff were asked to file the nutritional assessment document in patient's file instead of dietitian. During the pre intervention phase and post intervention phase the compliance rate of filling the form was 75% and 96% respectively. Paired t-test was done and its value rested at 0.03 ($p=0.05$) and suggested that intervention was highly effective in rendering results during post intervention period.

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INTRODUCTION

Nutritional assessment is typically defined as "a comprehensive approach to determining nutritional status using medical, nutritional, and medication histories; physical examination, anthropometric measurements and laboratory data. Diet plays a very important role in the recovery of the patient and also non-compliance or partial compliance to nutritional assessment and its documentation in patient's file attributes to loss of records, misplacement, missed nutritional assessment by dietitians and ultimately hinders patient care. Thus to assure that all the patient are assessed for their nutritional needs and subsequently documented as nutritional assessment form within 24 hours of the patient's admission in the hospital and also to determine the current compliance rate, a study was carried out wherein the medical record of all the patients who have completed 24 hours of stay in the hospital were audited and compliance rate is calculated. All the new admission were covered in the study for a period of two weeks for capturing of data.

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MATERIALS AND METHODS

It was a prospective longitudinal study in which the PI visited all the wards and ICUs for collecting observations using a HIS data for covering all the new admissions. The sample size was 100% of the patients who have completed 24 hours of stay in the hospital (ISIC). The study was conducted in 2 parts i.e. 1st week during 1st April - 6th April, 2017 and 2nd week during 11th April - 17th April, 2017. During the first part of the study the existing methodology of nutritional screening was studied wherein nutritional screening was done and subsequently nutritional assessment was filled and kept in patient's medical records by the dietitian, also a receiving was taken from the nurses for the patients whose nutritional assessment was done. Intervention was introduced in which the screening of nutritional needs and subsequently filling of nutritional assessment was done and kept in the box file available on the nursing station by the dietitians and filing of nutritional assessment form in the patient's medical record was done by the nursing staff. Also double sided receiving was started among nursing and dietitian (in which receiving was given by the nursing staff in the dietitians registers and receiving was taken from the dietitians in the nursing register for all the patients under gone nutritional assessment).

RESULTS AND DISCUSSION

Table 1. Compliance to screening of nutritional needs and subsequently filling of nutritional assessment form within 24 hours of patient's admission in the hospital

Audit Period:	01st April, 2017 - 06th April, 2017 (Pre)	11th April, 2017 - 17th April, 2017(Post)
Sample Size:	All Newly Admitted patients during the audit period i.e. 120 patients	All Newly Admitted patients the audit period i.e. 154 patients
Total files audited:	63 (52% of total sample size)	78 (51% of total sample size)
Number of cases in which Nutritional Assessment done:	52	75
Number of cases in which Nutritional Assessment was done within 24 hours of admission:	47	73
Number of cases in which Nutritional Assessment was not done within 24 hours of admission:	4	2
Number of cases in which Nutritional Assessment was not timed:	1	0
Number of cases in which Nutritional Assessment was not found in the file or nutritional assessment not done:	11	3
Percentage compliance to filling nutritional assessment within 24 hours of admission:	75%	94%
Percentage non-compliance to filling nutritional assessment within 24 hours of admission:	25%	6%
Discharged patients:	22	45
File not available:	35	31

Table 2.1 Ward wise compliance to filling of screening of nutritional needs and subsequently filling of nutritional assessment

Study Period	Nanda Devi Ward		Everest Ward		Day Care Ward		General Ward		New Ward		Heritage Ward		OT Day Care Ward	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Total Admitted Patients	10	7	26	16	12	11	27	22	18	35	5	3	8	37
Total File Audited	7	7	19	15	4	8	11	11	7	21	3	1	5	4
Number of cases in which Nutritional Assessment done:	6	7	14	15	4	8	6	10	6	21	2	1	5	4
Number of cases in which Nutritional Assessment was done within 24 hours of admission:	6	7	12	14	4	8	6	10	5	20	1	1	5	4
Number of cases in which Nutritional Assessment was not done within 24 hours of admission:	0	0	2	1	0	0	0	0	1	1	1	0	0	0
Number of cases in which Nutritional Assessment was not timed:	0	0	0	0	0	0	0	0	1	0	0	0	1	0
Number of cases in which Nutritional Assessment was not found in the file or nutritional assessment not done:	1	0	3	0	0	0	5	1	1	1	1	0	0	0
Compliance %	86%	100%	63%	93%	100%	100%	55%	91%	71%	95%	33%	100%	100%	100%
Discharged patients	1	0	4	1	3	3	9	5	1	6	0	0	3	20
File not available	2	0	5	0	5	0	7	5	10	5	2	2	0	13

Table 2.2 Ward wise compliance to filling of screening of nutritional needs and subsequently filling of nutritional assessment

Study Period	ICU-1		ICU-2		HDU-1		Heart Command	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Total Admitted Patients	3	8	2	0	3	2	1	6
Total File Audited	2	5	1	0	2	1	0	2
Number of cases in which Nutritional Assessment done:	2	5	1	0	2	0	0	2
Number of cases in which Nutritional Assessment was done within 24 hours of admission:	2	5	1	0	2	0	0	2
Number of cases in which Nutritional Assessment was not done within 24 hours of admission:	0	0	0	0	0	0	0	0
Number of cases in which Nutritional Assessment was not timed:	0	0	0	0	0	0	0	0
Number of cases in which Nutritional Assessment was not found in the file or nutritional assessment not done:	0	0	0	0	0	1	0	0
Compliance %	100%	100%	100%	NA	100%	0%	NA	100%
Discharged patients	0	2	0	0	0	0	0	1
File not available	1	0	1	0	1	1	1	3

During the first part of the study the compliance rate was 75% only, which was very less and may attract non compliance (NC) during internal or external audits, it also reflects poorly onto patient care. However the introduction of new method lead to higher compliance amounting to 96% which can be benchmarked in near future (based on the trend analysis after one quarter of implementation of the new method). Paired t test was used as statistical method of analyzing the data with p value of 0.05 confidence interval. The t-value rested at 0.03 and suggested that the intervention was highly effective in rendering the results during post intervention period. We would also take this opportunity to thank her and the management of ISIC for allowing us to conduct the study.

Acknowledgment

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REFERENCES

National Accreditation Board for Hospital and Healthcare Providers (NABH) guide book to accreditation standards for hospitals (4th edition) December 2015.
