

Survey of the Clinical Pathway from Doctor-Patient Perspective

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ABSTRACT Objective: To investigate the factors influencing the Clinical Pathway. **Methods:** Both the medical staff and patients were investigated on the clinical pathway by a self designed questionnaire. The influencing factors of clinical pathway were analyzed based on the survey. **Results:** Most of the medical staff and the patients had positive response to implementing clinical pathway. The understanding of the participants, the education situation of the patients, the deference among certain diseases resulted in deferent questionnaire. **Conclusion:** The implementing of the clinical pathway brings many positive effects. The propagandizing and institution of clinical pathway should be improved to popularize the clinical pathway.

Key words: Clinical pathway; Influencing factor; Questionnaire

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Introduction

The clinical pathway is a tool that sets locally agreed clinical standards, based on the best available evidence, for managing specific groups of patients^[1]. The clinical pathway was introduced to our country from the late 1990s^[2], and was firstly carried out the pilot work in some general hospital of several big cities^[3,4]. The result of the pilot works showed that the clinical pathway could reduce the average in-hospital cost and the in-hospital time, and may be able to enhance the satisfaction of the patients^[5]. The clinical pathway will have the great significance to the current medical service organizational reform^[6]. But there's few attention paid on the influencing factors. This paper investigated the patients and medical stuff on the clinical pathway by a personnel made questionnaire, based on which the influencing factors of clinical pathway were analyzed.

1 Materials and methods

1.1 Materials

This study did the pilot project during the March 2010 to the August 2010, on four kinds of diseases: the unstable angina ,the type 2 diabetes ,the bladder tumor and the cancer of larynx. The medical staff and the patients underwent the clinical pathway made the pilot group, the same number of the medical staff and patients from the other departments made the control group.

1.2 Methods

The questionnaires were made based on relevant reference^[7,8]. The questionnaires have two versions, the patient version and the medical version. The questionnaire was conducted anonymously and the investigator monitored the questionnaire to avoid the waste cent.

1.3 Statistical Methods

All the data was processed through the SPSS17.1 statistical

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software. The statistic data was analyzed with Chi-square test, and $P<0.05$ was considered statistically significant.

2 Results

In this investigation 395 cents of questionnaire were send out, and 188 cents of valid questionnaire were taken back in the each groups. 126 cases of patients and 62 cases of the medical staff of each group were surveyed. The basic information of the two groups showed no significant difference ($P>0.05$).

2.1 Result of the questionnaire on the medical staff

There were only 41 cases (33.1%) could master the relevant policies and the regulations. 119 cases (96.0%) of the medical staff considered that the implementation of the clinical pathway could significantly reduce the in-hospital cost and the in-hospital time, and 112 cases (90.3%) among them thought the clinical pathway should be favor to solve the problems of the lack of the health resources and high cost. 120 cases(96.8%) of the medical staff think the implementation of the clinical pathway was helpful to communicate with the patients. 113(91.1%) cases considered that the clinical pathway had fairly strong constraining force and could play a guiding role in the clinical work, 100 cases(80.6%) considered that unnecessary operations could be reduced by the clinical pathway. There was no significant difference for the results of above questionnaire items on the medical staff between the two groups ($P>0.05$).

There were only 19 cases (15.3%) who thought that the clinical pathway still needs to be further improved. 91 persons (73.4%) considered the clinical pathway favored to regulate the clinical operation as soon as possible, but 33(26.6%) cases thought the clinical pathway went against the practice of the doctors' clinical thinking.

The result on the open questions:6 cases considered the constituting of the clinical pathway to be unreasonable and only fitting a few departments. The main obstacle during the implement was that the educational work was a large workload.

2.2 Result of the questionnaires on the patients

252 cases of patients were surveyed successfully, each group had 126 cases. 123 cases (97.6%) from the pilot group underwent the education about the clinical pathway, and 45 cases (35.7%) among them mastered the relevant policies pretty well, that was significantly better than that of the control group ($P<0.05$). After involved in the clinical pathway, 225 cases (89.3%) felt their tensions were reduced, which was helpful to coordinate with the examination and treatment. 247 cases (98.0%) considered that the clinical pathway could reduce the in-hospital time and the in-hospital cost, and 237 cases (94.0%) felt more confident on the result of the treatment.

The questionnaire on the impact of the clinical pathway on the clinical work showed difference. 222 cases (88.1%) considered that the clinical pathway could standardize the medical examination and treatment. The patients who considered the clinical pathway to increase the medical examination and treatment project in the control group and the pilot group were 39 cases (30.9%), 24 cases (19.0%), respectively ($P<0.05$). The patients considered that the clinical pathway would ignore the individual differences in patients in the control group and the pilot group was 41 cases (32.5%), 26 cases (20.6%), respectively ($P<0.05$).

6 cases of the patients in the control department felt that the concepts of the clinical pathway were difficult to be understood. There were 12 patients that paid by the medical care or the New-type Rural Cooperative Medical System worried of the increasing of the own-paid treatments in the clinical pathway.

2.3 The results of the compare of the medical staff and the patients

There were 119 cases (96.0%) of the medical staff and 247 cases (89.0%) of patients thought that the clinical pathway could effectively control the in-hospital costs and in-hospital time, there were no significant difference between them ($P>0.05$). The person who considered the clinical pathway would be helpful to the patient communication were 120 cases (96.8%) in the medical staff and 225 cases (89.3%) in the patients. The cases who considered the clinical pathway could standardize the medical treatment between the medical staff (113 cases, 91.1%) and the patients (222 cases, 88.1%) had no significant difference ($P>0.05$). But the ratio of the medical staff (23.4%) who considered the clinical pathway would ignore the individual difference was higher than the patients (16.3%), the difference was significant ($P<0.05$).

3 Discussion

In order to control the medical services costs and health care costs, much research had been done on the clinical pathway in foreign countries since the middle of 1980s^[9]. The Ministry of Health had issued the clinical pathway of 25 diseases, during June-September 2009, and issued the Notice on Carry out the Pilot Work of the Clinical Pathway^[10]. The Affiliated Hospital of Medical College Qingdao University is one of the first pilot units. This

study carried out the pilot work of clinical pathway in four departments of out hospital, since March, 2010.

Among both groups, more than 95% of the respondents believed that the clinical pathway should be conducive to resolving the current problem about the "difficulty and high cost of getting medical service". More than 80% of respondents considered that the implementation of the clinical pathway could play an active role in standardizing the clinical operation. Almost 80% patients thought that after underwent the clinical pathway, they understood their illness better and the tension feeling was reduced.

It was found that the effect of the education about the clinical pathway was better in the pilot group than the that in the control group. There're more patients considered that the clinical pathway wouldn't reduce the items of the medical examination in the control group than the pilot group. This may due to that the education about the clinical pathway was not taken seriously in the departments had not carried out the clinical pathway yet.

The ratio of the respondents that thought the clinical pathway might be conducive to the patient communication was higher in the medical staff than that in the patients. This result was unexpected at the design stage. It was needed to strengthen the positive role of popularization and education of the clinical pathway to eliminate the misunderstandings. There were more doctors in the control group who thought the implementation of clinical pathway might ignore the individual differences or affect the doctors' autonomy, and this study got the same result on the patients. A few of the medical staff considered that the implementation of the clinical pathway was not conducive to the training of the doctors' clinical thinking. It can be thought that both the medical staff and the patients still had some concerns about the clinical pathway. When the government instituted the clinical pathway, the autonomy of the doctors and the clinical training of the young doctors should be paid enough attention.

The statistics of the variation showed that 36.8% variation cases were delayed the surgical procedures due to weekends. The implementation of the clinical pathway was a multidisciplinary process, which required the coordination among different departments^[11]. The coordination and convergence of relevant departments should be strengthened. Currently, little attention was paid on the variation of the clinical pathway, the policy of treatment on variation is still very lack^[12].

4 Conclusion

The result of the implementation of the clinical pathway in our hospital showed that the clinical pathway can reduce the average in-hospital time and the in-hospital cost. The clinical pathway can improve the health care quality and utilization of health resources. That was in line with current health care reform^[13].

The implementation of the clinical pathways may be influenced by many factors, such as the level of hospital management

[14], the public education and knowledge penetration, the medical staff, the patients themselves, the aspects of the disease itself, how the medical bill is paid, et al. The impact of these factors affects the whole process during the implementation of the clinical pathway [15]. In order to promote the clinical pathway, further study on these factors should be made. To build a complete clinical pathway as soon as possible should highly reduce the health service cost and promoting the health care reform [16].

References

- [1] 陶红兵,刘鹏珍,梁婧,等.实施临床路径的医院概况及其成因分析[J]. 中国医院管理,2010,30(2):28-30
TAO Hong-bing, LIU Peng-zhen, LIANG Jing, et al. Survey and analysis of the hospital implementing clinical pathway [J]. Chinese Hospital Management, 2010,30(2):28-30
- [2] Maris DF, Juan L, Quiteria H, et al. Clinical pathway for laparoscopic gastric bypass[J]. OBES SURG, 2007, 17:1584-1587
- [3] Milka GI, Max G. Clinical pathway - the Bulgarian approach [J]. J Public Health. 2009, 17:225-230
- [4] 曹建文,陈洁,应向华,等. 临床路径在医院管理中的应用[J]. 中国医院, 2009, 13(6): 7-10
CAO Jian-wen, CHEN Jie, YING Xiang-hua, et al. The application of clinical pathways in hospital management [J]. Chinese Hospitals, 2009, 13(6):7-10
- [5] Kitchiner DJ. Clinical pathways - A practical tool for specifying, evaluating and improving the quality of clinical practice [J]. Med J Aug, 1999, 170:54-55
- [6] Tamake N, Toshiro K, Satoshi N, et al. Development of clinical pathways in S-1 chemotherapy for gastric cancer [J]. Gastric Cancer, 2003, 6:58-65
- [7] 聂晓瑛,姜宏,舒志荣,等.举证责任倒置对医生影响的调查分析.齐鲁医学杂志,2010,25(4):369-371
NIE Xiao-ying, JIANG Hong, SHU Zhi-rong, et al. The impact of reversion for burden of proof on medical doctors [J]. Med J Qilu, 2010, 25(4):369-371
- [8] 李晓慧.社区卫生服务机构综合评价效果影响因素研究.中国卫生统计,2008,10(25):515-517
LI Xiao-hui. Analysis on Influencing Factors of Community Health Care Assessment System. Chinese Journal of Health Statistics, 2008, 10(25):515-517
- [9] Schwarzbach M, Bonninghoff R, Harrer K, et al. Effects of a clinical pathway on quality of care in kidney transplantation: a non-randomized clinical trial [J]. Langenbecks Arch Surg, 2010, 395: 11-17
- [10] 赵希平,余丽君.临床路径的应用效果和存在的问题[J]. 中国医院管理, 2010, 30(2):31-32
ZHAO Xi-ping, SHE Li-jun. The Effects and Problems of Clinical Pathway [J]. Chinese Hospital Management, 2010, 30(2):31-32
- [11] 武广华.临床路径在单病种限价中的作用[J]. 中国医院, 2009, 13(6): 20-23
WU Guang-hua. Role of clinical pathway in single disease payment [J]. Chinese Hospital. 2009, 13(6):20-23
- [12] So JBY, Lim ZeL, LIN H, et al. Reduction of hospital stay and cost after the implementation of a clinical pathway for radical gastrectomy for gastric cancer [J]. Gastric Cancer, 2008, 11:81-85
- [13] 陶红兵,陈璞,方鹏骞,等.临床路径费用控制的影响因素分析及控制策略探讨[J]. 中国医院管理, 2008, 28(7):16-18
TAO Hong-bing, CHEN Pu, FANG Peng-qian, et al. Analysis of influencing factors of expenses control based on clinical pathway [J]. Chinese Hospital Management, 2008, 28(7):16-18
- [14] Uchiyama K, Takifuji K, Tani M, et al. Effectiveness of the clinical pathways to decrease length of stay and cost for laparoscopic surgery [J]. Surg Endosc, 2002, 16:1594-1597
- [15] Topal B, Peeters G, Verbert F, et al. Outpatient laparoscopic cholecystectomy: clinical pathway implementation is efficient and cost effective and increase hospital bed capacity [J]. Sur Endosc, 2007, 21:1142-1146
- [16] Brecht G, Erik D. Capacity of clinical pathways-A strategic multilevel evaluation tool [J]. J Med Syst, 2008, 32:443-452

医患视角下的临床路径实施情况调查

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摘要 目的:调查分析实施过程中各种可能的影响因素。方法:就临床路径实施情况对患者及医务人员进行问卷调查,并分析其影响因素。结果:试点临床路径后患者住院时间及住院费用有显著下降,受试者对临床路径认知程度、自身文化水平、不同疾病差异等导致问卷结果差异和变异情况的发生。结论:临床路径的实施有着多方面的积极作用,进一步推广应用需改进临床路径的宣传教育、制定和落实情况,并加强有关影响因素的深入研究。

关键词 临床路径;影响因素;问卷调查

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