

**Study on Disease Patterns and Medical Expenditure of Minor  
Inpatients  
——Case Study from a Tertiary Hospital, Southern China**

by

**WANG SHANPING**



**Institute of Chinese Medical Sciences  
University of Macau**

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**——Case Study from a Tertiary Hospital, Southern China**

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WANG SHANPING

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Approved by \_\_\_\_\_

Supervisor

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Date \_\_\_\_\_

# 硕士学位论文

未成年住院患者疾病模式及住院费用研究

----南方某三甲医院个案分析



澳门大学中华医药研究院

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## 摘要

**[目的]:** 系统分析未成年住院患者的分布特点, 并对患者的常患疾病和相应的费用水平进行分析, 对住院费用的影响因素进行分析。通过相关的分析探索未成年人的患病情况、费用水平。为保护未成年人的身心健康做出指导, 同时对未成年人医疗费用控制和卫生资源的分配提供依据。

**[方法]:** 采用回顾性研究, 使用 SPSS17、Excel 软件对数据资料进行描述性分析、非参数检验及多元逐步回归分析。

**[结果]:** 不同年龄段患者数均是男性患者多于女性患者, 整体而言, 61.83% 的患者为男性。未成年患者主要支付方式为自费, 占比 81.5%, 医保支付方式占比 17.1%。未成年患者不同年龄段的疾病谱不一样, 其中最易患的三大疾病为呼吸系统疾病、某些传染病及寄生虫疾病和消化系统疾病。未成年患者住院费用中药品费的构成比最大为 33.02%, 其他费用占比最小为 7.25%。不同年龄段的患者, 其药品费和检查项目费构成比基本稳定。不同疾病系统类别, 药费占比各不相同, 妊娠、分娩和产褥期疾病的药费比最高, 为 39.00%, 药费比最低的疾病类别为起源于围生期某些疾病, 为 12.56%。未成年人最易患的三大疾病的药费比为: 呼吸系统疾病 (38.48%)、某些传染病与寄生虫疾病 (35.95%)、消化系统疾病 (36.32%)。

未成年人不同疾病类别住院天数、日均费用、例均住院费用各不一致, 平均住院天数最长的疾病是肌肉骨骼系统和结缔组织疾病 (10.94 天), 其次是泌尿生殖系统疾病 (9.88 天) 和先天性畸形、变形和染色体疾病 (9.2 天)。患病人数构成比最多的三大疾病的例均住院费用: 呼吸系统疾病 (2280.80 元/37.36%)、某些传染病和寄生虫病 (2311.86 元/10.80%)、消化系统疾病 (2927.82 元/10.64%)。未成年患者住院天数和例均住院费用均随着年龄组的增加而增加, 每增加一个年龄组, 住院天数平均增加 7.43%, 例均住院费用平均增加 12.41%。通过日均费用的分析发现床位费和治疗费的日均费用随着年龄的变化基本保持稳定。通过将手术患者与非手术患者对比分析发现, 住院费用随着年龄的增加而增加的原因是手术患者的人数在随着年龄的增大

而增多，手术患者构成比由新生儿组的 5.9%增加到青春期组的 54.4%，无论是手术患者还是非手术患者，日均药品费和日均检查项目费都随着年龄的增加而增大。对未成年患者住院费用的影响具有统计学意义的因素有 11 项，按照其影响程度由大到小依次为：住院天数、是否手术、药费比、疾病类别、年龄、入院情况、是否抢救病人、疗效、三日确诊、入院符合、自费与否。

**[结论]:** 未成年人的医疗保险覆盖率近两年有明显增加的趋势，但是总的来说，以医保为支付方式的患者数比例过低。应当根据未成年人实际的患病情况及住院费用水平制定相应的医疗保险政策，提高医保支付范围，以改善未成年患者家庭经济负担过重的情况。未成年常患疾病较为集中，重点关注呼吸系统疾病、某些传染病和寄生虫疾病及消化系统疾病，做好相应的疾病预防工作，合理分配医疗资源。未成年人住院费用构成中占比最大的为药品费。未成年人患者的住院费用随着年龄的增大而增加，增加的原因为住院天数和手术患者数的增加。增加的费用部分为药品费和检查项目费，本研究认为控制住院费用应重点放在这两项上。同时，住院天数、手术与否、药费比是影响未成年患者住院费用最主要的三大因素，控制住院天数是降低住院费用的有效途径。

**关键词:** 未成年人、病种、住院费用、影响因素

## Abstract

**[Objective]**To have a better understanding of hospital expenses of minors and provide guidance to allocation health resources, this study analyzes the minor patients' characteristics and disease species structures through the distribution of patients in gender and payment method, and the major factors that influence the hospital expenses are founded to control the hospital expenditure.

**[Method]**Medical records of minor inpatients under eighteen were collected from a tertiary hospital between 2003~2009. SPSS17.0 and Excel were used as the analysis software. Descriptive statistical analysis, non-parametric test and multiple regressions were used as the methods.

**[Results]** Among the minor patients, there are more male patients than female ones with 61.83% to 38.17%. There are 81.5% patients paying the bill by themselves; another 17.1% are covered by Medicare insurance which is in a low level. The disease spectrums are various among different ages; minors are most susceptible to respiratory diseases, certain infectious and parasitic diseases, digestive diseases. Drugs by 33.03% account for the largest proportion of hospital expenses. The constitution of expenses of drugs and examination is stable with different ages but is different among diseases. Caught during Pregnancy, childbirth gets the largest proportion of drug fee, while diseases originated in the perinatal period gets the lowest. Among all the diseases, the average admission day of inpatients with musculoskeletal system and connective tissue disease is 10.94 days, which is longer than other diseases. The average hospital expenses of the three most susceptible diseases are: respiratory diseases (2280.80 yuan/37.36%), certain infectious and parasitic diseases (2311.86 yuan / 10.80%), digestive diseases (2927.82 yuan / 10.64%). The average hospital days and costs take a 7.43% and 12.41% increase respectively with the increase in an age group. As the daily expenses of bed and curing are remain stable among different age groups, so the number of admission days results in the increase of total bed expenses and curing expenses. A comparison between surgery patients and non-surgery patients suggests that the amounts of surgery which increase from 5.9% in the age of fewer than 28 days to 54.4% in the age between 13~17 year-old patients account for the increase of hospital expenses.

The daily drug fees and examination fees are getting more and more with the patients getting older whether they are surgery patients or not. Meanwhile, the main significant factors which influence health expenses of minor patients were as follows: length of stay, surgery or not, medicine proportion, disease category, age, admitting conditions, emergency rescue or not, curative effect, Dx determined in three days after admission, OP. adm. and discharge Dx concur, pay by patients or not.

**[Conclusion]**The coverage of health insurance of minors increased significantly, but the patients paying by medical insurance is low. So the government should improve the health insurance of minors to relieve the financial burden of minors. The public should pay more attention to diseases such as respiratory diseases, certain infectious and parasitic diseases, digestive diseases which the minors are most susceptible to. Meanwhile, the results give guidance about how to allocate health resource rationally. The drug fee has a largest proportion in hospital expenses of minors. The length of stay and the number of surgery patients accounts for the hospital expense increases with age group. The drug and examination fees are the most important parts that contribute to the hospital costs, In order to reduce the hospital expense, the drug and examination fees must be controlled in advance. Moreover, the most important factors that influence hospital expenses are length of stay, surgery or not and the proportion of medicines. So shortening the average length of stay to control the expenses is advised.

**Key words:** Minors, Diseases, Hospital expenses, Influential factors



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