

# 基于隐结构模型的王希胜主任医师 治疗肺癌的用药规律研究<sup>\*</sup>

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**摘要:**目的 挖掘陕西省名老中医王希胜主任医师肺癌证治的用药规律。方法 系统搜集陕西省名中医王希胜主任医师肺癌证治处方, 构建隐结构模型(Lantern 3.4 软件), 采用 LTM - EAST 算法进行隐树模型学习, 以贝叶斯信息标准评分评价模型质量。采用互信息、信息覆盖率、隐类概率、条件概率等定量指标诠释模型中各个变量, 以累积信息覆盖率达到 95%, 作为诠释隐变量特征的截取标准, 以人工判读方法揭示各肺癌证治隐类的用药配伍组方规律。**结果** 共收录关于肺癌处方 304 首, 累计 137 味中药, 共计 40 味中药使用 > 20 次。隐结构模型显示, 贝叶斯信息标准评分 - 3779.35, 涉及 33 个显变量, Y1 ~ Y8 等 8 个隐变量。肺癌患者以脾肾两虚、虚瘀互结证为主, 兼见肾虚腰痛证、痰饮阻肺证、湿阻中焦证、脾虚食滞证、精血亏虚证。**结论** 隐结构模型结合人工判读, 即定量结合定性研究方法, 能客观揭示中医药数据的隐类特征, 适宜于名老中医用药证治规律的研究。

**关键词:** 肺癌; 隐结构模型; 用药规律

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## Research on the Medication Rule of Chief Physician Wang Xisheng in the Treatment of Lung Cancer Based on Latent Structural Model

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**Abstract Objective:** To explore the rule of medication for the treatment of lung cancer with the chief physician of the famous Chinese medicine Doctor Wang Xisheng in Shaanxi Province. **Methods:** The prescriptions for lung cancer of Wang Xisheng, a famous doctor in Shaanxi Province, were collected systematically, and the latent structural model (Lantern 3.4 software) was constructed. LTM - EAST algorithm was used to learn the latent tree model, and the quality of the model was evaluated by Bayesian information standard score. Quantitative indicators such as mutual information, information coverage rate, latent class probability and conditional probability were used to interpret the variables in the model. The cumulative information coverage rate was 95%, which was used as the interception criterion to interpret the characteristics of latent variables. Artificial interpretation method was used to reveal the law of drug compatibility among the various types of lung cancer. **Results:** There were 304 prescriptions for lung cancer, totaling 137 Chinese medicines, and 40 Chinese medicines were used more than 20 times. The latent structure model showed that the Bayesian information standard score was - 3779.35, involving 33 explicit variables and 8 implicit variables, such as Y1 - Y8. Lung cancer patients

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