

# Standardized clinical pathways may potentially help to reduce the opacity of medical treatment in China – Reflections on the murder of a doctor in Wenling, Zhejiang

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**ABSTRACT:** A doctor was murdered at Wenling First People's Hospital in Zhejiang, China on October 25, 2013. During the incident, a patient assaulted three doctors, resulting in the death of one of the doctors. This incident has led to a heated discussion about the unhealthy doctor-patient relationship in China. There are complex reasons for the strained doctor-patient relationship in China, but one aspect that helped lead to this situation is the opacity of medical treatment. Research has shown that implementation of clinical pathways reduces the variability of clinical practice and improves outcomes. Standardized clinical pathways can provide a standard for evaluation of the rationality of treatment and also suggest a recommended treatment, potentially reducing the opacity of medical treatment in China. However, the standardized clinical pathways that are currently in use in China still need to be improved. The implementation of clinical pathways needs to be increased, those pathways need to be formulated in detail, a supervisory body needs to be established, and the public needs to be better informed. These aspects should be studied further.

**Keywords:** Doctor-patient relationship, doctor-patient contradiction, standardized clinical pathway

## 1. Introduction

A doctor was murdered at Wenling First People's Hospital in Zhejiang, China on October 25, 2013. A male patient assaulted 3 doctors, resulting in the death of one of the doctors. According to reports, the murderer was a patient at the hospital who underwent minimally invasive surgery on his nose on March 20, 2012. After

the surgery, patient repeatedly indicated that his nose was blocked and that he had difficulty breathing. After the patient complained to the hospital, the hospital arranged several meetings in an attempt to identify the problem but concluded that the surgery was successful. The hospital tried to explain to the patient that the surgery was successful but the patient disagreed (1,2). After a prolonged period of filing complaints, the patient attacked hospital staff and ultimately caused the death of a doctor.

After this incident, the unhealthy doctor-patient relationship in China was reexamined again and a heated discussion ensued. In 1994, the Chinese Government began to reform the medical system. However, the doctor-patient relationship improved little, and this relationship is more strained now than it ever was in China's history. There are complex reasons for the strained doctor-patient relationship, but one aspect that helped lead to this situation is the opacity of medical treatment.

A standardized clinical pathway consists of "systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances" (3). Clinical pathways have been viewed as formal procedures for care and disease management (4) as well as a way to potentially reduce the opacity of medical treatment. After the first standardized clinical pathway was adopted by the New England Medical Center in Boston in 1985, the concept of clinical pathway has spread around the world.

## 2. The role of standardized clinical pathways in a medical dispute

A clinical pathway is expected to play 3 roles: *i*) assisting practitioners in appropriate clinical decision-making; *ii*) improving the quality of healthcare and outcomes for patients; and *iii*) supporting and influencing regional or national policies for efficient resource allocation and better delivery systems (5-7). In more specific terms, a clinical pathway can help to formalize the treatment process, help explain treatment and increase transparency, and help optimize health resources and

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facilitate rational decisions such as revision of essential drug lists and improvement of health insurance.

Research has shown that the implementation of clinical pathways reduces the variability of clinical practice and improves outcomes (8-11). With a standardized clinical pathway, the patient can easily distinguish between treatment that is rational and treatment that is not, and the doctor is given better tools to explain the outcomes of that treatment. Thus, a standardized clinical pathway provides a standard for evaluation of the rationality of treatment. For example, a series of guidelines regarding the diagnosis and treatment of hepatocellular carcinoma (HCC) has been adopted in Japan with the support of Japanese Ministry of Health, Labor, and Welfare (5,12). These guidelines determine the appropriate treatment for each situation by recommending a preferred treatment and special treatment in specific circumstances, and these guidelines also indicate the possible outcomes of each treatment as a reference. Based on these guidelines, doctors and patients can easily identify which type of treatment is necessary or recommended and what type of results may occur, thus helping to reduce treatment disputes between the doctor and patient. In other words, these guidelines not only provide a way to reduce treatment disputes between patients and doctors but also offer a way to potentially reduce the opacity of medical treatment by providing a standardized treatment process.

### 3. Standardized clinical pathways in China

Standardized clinical pathways are a relatively new concept in China, but the Chinese Government has emphasized research on standardized clinical pathways. As an example, the Chinese Government implemented a series of standardized clinical pathways for diagnosis and treatment of liver cancer. The most recent pathways were determined in 2011 and include the detection and screening of high-risk groups, clinical manifestations, diagnostic criteria (clinical and pathological), staging, criteria for selection of different treatments, and follow-up visits (13). Similar standardized clinical pathways have also been adopted at different medical facilities (14-16).

*The implementation of clinical pathways* Few Chinese hospitals have currently implemented standardized clinical pathways. One study found that only 0.82% of hospitals nationwide had implemented such pathways and that those pathways had only been implemented for an average of 2.02 years. Of the hospitals that had implemented clinical pathways, 82.7% had pathways for fewer than 10 diseases while only 4.8% had pathways for more than 50 diseases (14). In relative terms, developed countries have more extensive implementation of clinical pathways (17). As an example, a Swedish study indicated that clinical pathways were in use at 20% of Swedish intensive care units (ICUs) and a total of 56 clinical pathways were reported within a range of

fields and areas (18). A study of clinical pathways in 17 member states of the European Union found that the United Kingdom had the highest estimated level of pathway use, with a level reaching almost 45% in 2004. Countries with lower levels of pathway use such as Slovenia, the Netherlands, Belgium, and Austria had a level reaching almost 10% (19). Given these findings, the clinical pathways currently in use in China are unlikely to provide a complete standard or a way to reduce the opacity of medical treatment. Therefore, further research into increasing the implementation of clinical pathways needs to be conducted.

*Formulation of clinical pathways in detail* The standardized clinical pathways currently in use in China tend to contain general information about disease but still lack information about standards for specific treatments. As an example, the standardized clinical pathway for diagnosis and treatment of liver cancer in China include information about when a hepatectomy is indicated but lack information about how that hepatectomy should be performed, such as preoperative preparations, preoperative fasting, and preoperative assessment (13). Thus, clinical pathways do not provide a reliable standard when there is a disagreement about a hepatectomy. Further study of clinical pathways in detail would be of use.

*Establishment of a supervisory body* China lacks an official supervisory body to oversee the implementation of standardized clinical pathways. The few local supervisory bodies that do exist have little authority to ensure pathways are followed. Doctors have little fear of repercussions should they fail to follow clinical pathways, making them more likely to ignore those pathways. The lack of a supervisory body also leads to distrust on the part of the patient. Thus, the lack of a supervisory body has possibly hampered the implementation and use of clinical pathways.

*Better public education about standardized clinical pathways* There is little recognition of the usefulness of clinical pathways in China, both among doctors and patients. Although a number of hospitals have adopted the concept of clinical pathways, the idea of using those pathways to explain treatment and to reduce treatment disputes is relatively new. No studies in China have examined patient education about clinical pathways. Better public education about standardized clinical pathways can help to increase both doctor and patient awareness of the usefulness of clinical pathways and help to potentially reduce the opacity of medical treatment.

### 4. Prospects for standardized clinical pathways to reduce the opacity of medical treatment in China

A strained doctor-patient relationship is particular to China. There are complex reasons for this situation, but the opacity of medical treatment is one contributing factor. A system of standardized clinical pathways including complete clinical pathways, a powerful

supervisory body, and better education of the public may provide a way to increase the level of standardized medical treatment and to reduce the opacity of that treatment. Therefore, further research into increasing the implementation of clinical pathways, formulation of clinical pathways in detail, establishment of a supervisory body, and better education of the public may offer better chances of increasing the level of standardized treatment, reducing the opacity of that treatment, and improving the doctor-patient relationship.

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