

Perspective

The Guideline for Hierarchical Diagnosis and Treatment of Diabetic Retinopathy in China

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In 2017, in order to strengthen Diabetic Retinopathy (DR) prevention and control, Ministry of Public Health of China has issued "The hierarchical medical service technical scheme of diabetic retinopathy", which provides guidance for the prevention and treatment of DR in China. Furthermore, in recent years, the Chinese government has widely promoted the construction of "Medical Treatment Combination" (MTC), which is benefit to further strengthen the links between tertiary hospitals and secondary hospital, and make hospitals in different levels more closely connect with each other. MTC refers to the different levels of medical institutions will be integrated in the same area, which made tertiary hospitals as the lead units and combined several secondary hospitals and community health service centers to guide patients to see a doctor in the MTC orderly. These policies will help to improve the imbalance of medical resources. The establishment of the MTC can benefit to promote the formation of the pattern of the classification and diagnosis of diseases, so it is helpful for the implementation of DR hierarchical diagnosis and treatment, so as to control DR better in China.

Keywords: Diabetic retinopathy; Policy development; Health care reform**Perspective**

Diabetic Retinopathy (DR) is a common cause of blindness. China has the largest number of patients with type 2 diabetes in the world. DR has become the leading cause of blindness in working-age people currently. In the "Chinese thirteenth five year plan" of Eye Health, the Chinese government takes DR as one of the indicators to eliminate avoidable blindness, and calls for strengthening professional training to explore and establish a health management model for early screening, diagnosis, treatment and referral of DR. Diabetes mellitus is a systemic metabolic disease. The diagnosis, treatment and management should be shared by general practitioners, physicians and endocrinologists. Therefore, general practitioners, physician and endocrinologist doctor should constitute an integrated healthcare team with ophthalmologists, clarify the responsibilities of the medical staff in medical institutions at all levels and establish a two-way referral and grading system between internal medicine and ophthalmology [1].

In 2017, in order to do the DR prevention work well, Ministry of Public Health of China has issued "The hierarchical medical service technical scheme of DR", which provides guidance for the prevention and treatment of DR in China. The technical scheme points out that 87% of diabetics are treated in medical institutions at the

county-level hospital in China. However, the basic diagnosis and treatment of DR can only be implemented in tertiary hospitals and ophthalmology hospitals. Therefore, nearly 70% of diabetics have not received standardized ophthalmic treatments, and about 90% of DR with evidence of the laser therapy is not treated. Only 20% percent of patients who are supposed to receive the laser therapy have received standardized laser therapy [2]. The Chinese government hope that through the implementation of these policies to build

DR hierarchical referral system. For these purposes, they need to establish close cooperation relationship between relevant medical departments, consist of the general practitioner of the basic medical institutions, nursing personnel and tertiary hospital specialist (Endocrinology, Ophthalmology). These Measures can prevent and control DR more effectively and reduce blindness rate. The technical scheme details the work that different levels of hospitals need to do in DR diagnosis and treatment. In addition, the follow-up management and education of DR were clearly defined. The criteria for referral at all levels, the responsibilities of hierarchical diagnosis and treatment, the content and frequency of follow-up visits are detailed in the plan. The treatment objective of DR is based on the strict control of blood glucose, blood pressure, blood lipid and other medical treatments [2]. The primary prevention of diabetes is to reduce the incidence of diabetes through lifestyle changes. Secondary prevention is to control diabetes and reduce or delay the severity of DR. Therefore, the "Chinese thirteenth five year plan" of Eye Health emphasized that strengthen health education, improve the awareness of DR and prevention awareness of diabetic patients. The practitioners of health education include different medical professionals, such as general practitioners, physicians, endocrinologists and ophthalmologists. Although the technical scheme provided detailed regulations of hierarchical diagnosis and treatments, however, during the process of implementation, due to the mutual relationship between different levels of medical institutions is so less and the

hierarchical diagnosis is so difficult that referral pathway is blocked. In recent years, the Chinese government has widely promote the construction of "Medical Treatment Combination" (MTC), which is benefit to further strengthen the links between tertiary hospitals and secondary hospital, and make hospitals in different levels more closely connect with each other. MTC refers to the different levels of

medical institutions will be integrated in the same area, which made tertiary hospitals as the lead units and combined several secondary hospitals and community health service centers to guide patients to see a doctor in the MTC orderly. The Chinese government has established the MTC to share medical resources, guide patients to seek a doctor in hierarchical diagnosis and treatment, which can solve the exploration of the problem of “the difficulty to receive medical treatment”. The establishment of the MTC can benefit to promote the formation of the pattern of the classification and diagnosis of diseases, so it is helpful for the implementation of DR hierarchical diagnosis and treatment, so as to better control DR in China [3].

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