Atención Primaria

LETTER TO THE EDITOR

AI-based smart healthcare consortium management: An overview of the Dapeng Medical Group initiative in Shenzhen

Gestión inteligente de consorcios sanitarios basada en IA: una visión general de la iniciativa del Grupo Médico Dapeng de Shenzhen

Dear Editor,

The Primary Care Group actively promotes the digitization and establishment of intelligent primary care systems, focusing on developing a robust information infrastructure and enhancing patient experiences through intelligent scheduling and efficient resource management. The initiative also emphasizes the integration and sharing of medical resources through a unified medical information management system.

The rise of information technology and artificial intelligence has provided strong support for the development of smart healthcare consortia. The Dapeng Medical Group in Shenzhen fully recognizes this trend and actively promotes informatization and the establishment of smart healthcare consortia. In the initiative practice, they first focused on investing efforts in constructing an information infrastructure, establishing a fast and stable network system, cloud computing platform, and data center, which laid a solid foundation for subsequent smart healthcare applications.

Initiative overview

Construction background

The Primary Care Group, a comprehensive healthcare institution, promotes smart primary care construction to enhance healthcare quality, safety, and management levels, catering to patient needs. The Dapeng Medical Group in Shenzhen (Fig. 1) is a modern comprehensive medical institution integrating medical treatment, teaching, research, rehabilitation, preventive care, and health education. As one of Shenzhen's medical institutions with the most key disciplines at the national, provincial, and municipal levels, the medical group attaches great importance to informatization and optimizes business processes through active promotion of smart healthcare consortium construction to enhance medical quality, safety, and management levels, meeting patient needs.

Construction objectives

The goal of the Dapeng Medical Group's initiative on smart healthcare consortium management is to conduct top-level design for comprehensive hospital informatization based on international and domestic standards, utilizing advanced technologies such as cloud computing, big data, the Internet of Things, mobile Internet, blockchain, and artificial intelligence to build an internationally advanced smart healthcare consortium. The initiative aims to improve the scientific management level and medical service quality of the healthcare consortium to provide more efficient and high-quality services to patients. Additionally, the initiative aims to align with domestic and international medical service markets, achieve sustainable development of the healthcare consortium, and promote the construction of a patient-centered, electronically medical-record-focused intelligent healthcare consortium boutique initiative. The overall goal is to strive to achieve an ''advanced model, optimized process, comprehensive management, strong support, and efficient operation'' boutique initiative.

Implementation and achievements of the initiative

Application of artificial intelligence technology in primary care management

AI technology assists in intelligent data analysis and processing, optimizing decision-making processes, and improving management efficiency. It also plays a vital role in clinical decision-making, assisting doctors in making accurate diagnoses and treatment decisions, and improving medical quality.
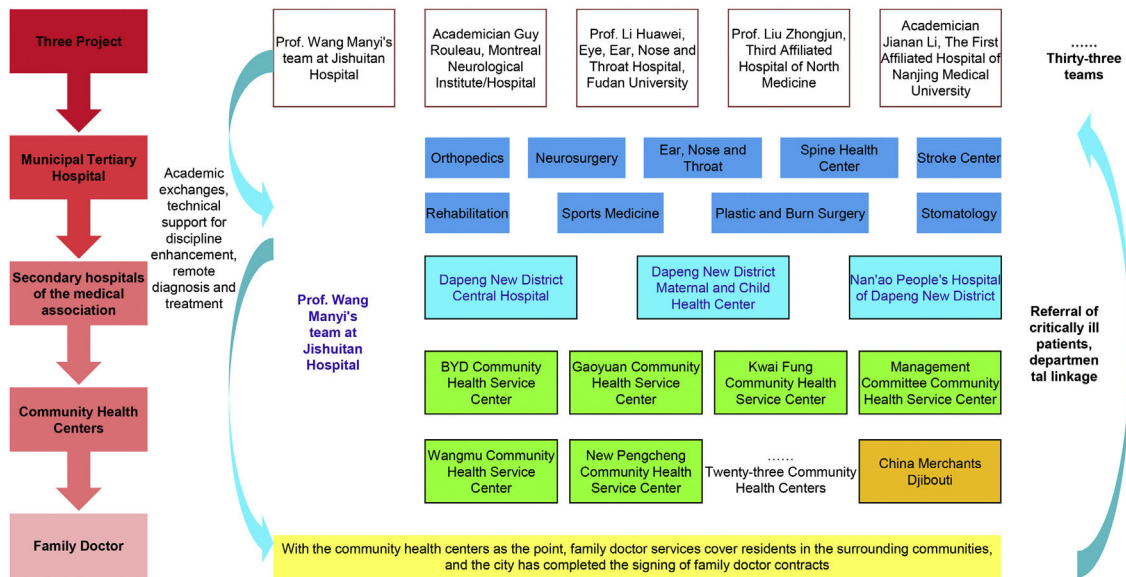
Figure 1   Conceptual framework of Dapeng Medical Group in Shenzhen city.

Impact of smart primary care construction on consortium management

The application of information technology optimizes business processes in the primary care consortium, enhancing communication efficiency and improving work efficiency. It also facilitates better collaboration among various departments within the consortium and positively impacts medical service quality and patient satisfaction.

Conclusion and outlook

The Primary Care Group's initiative on smart primary care management has provided essential technical support for consortium management and the improvement of medical service quality. However, smart primary care consortium construction still faces challenges in technology, security, privacy, etc., requiring further research and exploration.

In the future, the Primary Care Group will continue to explore and practice, utilizing AI technology to promote primary care informatization construction, enhance medical service quality, and provide better medical services to patients.

Ethical considerations

Our study did not involve human or animal subjects, hence no ethical review was required. Nonetheless, we ensured research integrity and transparency, adhering to international standards.

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Conflicts of interest

The authors declare that they have no conflicts of interest to report regarding the present study.

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