

# Application of Information Technology in the Outpatient Service Optimization

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## Abstract

*In a hierarchical diagnosis and treatment policy local tertiary hospitals assume the majority of clinic service, improving patient medical experience and enhancing service quality. Information technologies such as comprehensive self-services, and palm medical APPs can help solve these problems.*

## Keywords:

Quality of Health Care; Service optimization; Delivery of Health Care; Telemedicine.

## Introduction

The Outpatient clinic is the first hospital window directly connected to the hospital's image [1]. The National Health and Family Planning Commission of the People's Republic of China has explicit requirements for tertiary hospitals: enhance working efficiency of outpatient clinic, optimize outpatient medical service procedures, shorten medical-therapy-seeking time, and increase visit satisfaction. Information technology is an efficient means to strengthen the hospital's scientific management and enhance the medical quality. Optimizing the outpatient clinic treatment procedure can help solve the "three longs and one short". Here, we monitor service quality promotion in the outpatient clinic by comparing the original flowchart to a new flowchart.

## Methods

### Service Optimization of Outpatient Clinic

*Implementing the All-Purpose Card at the Outpatient Clinic.* The all-purpose card integrates patients' basic information. It enables patients to pay a security deposit in advance, complete registration, make payments, receive diagnoses/treatments, get medications, and check inspection reports.

*Time-Segmented Appointment-Making and Registration.* Average treatment time is computed by the information system, which can be used to reduce registration and wait time.

*Outpatient Clinic Payment/Appointment Implementation.* Doctors can directly accept payments, care for patients, and schedule appointments reducing patient time in queue.

### Carrying out Multiple Self-Services

To optimize the service and reduce the occurrences of "three longs and one short" multiple self-services are rendered.

*Adopting Multiple Registration Forms.* Appointment or registration by cellphone, website, official Wechat, on-site self-feeder, and manpower provide can reduce operational costs.

*Self-Help Medicine Getting.* Self-help medicine is used to help patients make payments and receive medications, reducing the time to fill prescriptions.

*Self-Service: Result of Laboratory Chemical Examination.* Self-service reporting machines, set outside of clinical

laboratories provide inspection and impact reports reducing reporting errors and patient wait time when receiving results.

*Self-Service Evaluation System.* Patients can readily evaluate the hospital service improving hospital service quality.

### Electronization of Outpatient Clinic/ Information Sharing

Electronic prescription, medical record, and application forms can improve fee collection transparency and patient assurance.

### Supporting Multiple Fee Charging Methods

Make payments with all-purpose card or bank cards or cellphone APP.

### Mobile Health

Palm medical therapy has multiple integrated functions: registration/fee collection, online result access, payments, expert introduction, online consulting, satisfaction evaluation, and hospital maps.

## Results

In the original flowchart of the outpatient clinic service process patients spent too much time in registration, waiting for treatment, making payments, filling prescriptions and waiting for results. The new system reduced treatment time and improved patient satisfaction and hospital service quality.

## Conclusion

The optimization of outpatient clinic service by information technology shortens medical-therapy-receiving time, and enhances work efficiency, and quality of hospital outpatient clinic service solving the "three longs and one short" phenomenon rendering a superior medical-therapy-seeking experience.

## References

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