KMUH Introduces Asia's First "Ultra-High-Speed Specimen Delivery System"
200-Meter Cross-Building Pneumatic Tube Network Combined with AI Delivers Specimens in 23 Seconds

Kaohsiung Medical University Chung-Ho Memorial Hospital (KMUH) has taken a pioneering step in smart healthcare by installing Asia's first "Ultra-High-Speed Specimen Delivery System." This cutting-edge system integrates an advanced cross-building pneumatic tube network with AI-driven big data analysis to comprehensively optimize the laboratory testing process. This innovation helped KMUH achieve outstanding results in the Smart Healthcare category at the 25th National Healthcare Quality Awards (NHQA) in 2024, earning the prestigious "Smart Hospital Full Institution Certification" once again.

To expedite blood testing for patients, KMUH's Department of Laboratory Medicine has implemented an "AI Big Data Analysis System." This system dynamically adjusts staffing at two blood-drawing counters, enabling precise workforce allocation to significantly reduce waiting times during peak hours. When patients check in, priority fast-track services are available for specific groups—such as those testing blood sugar, undergoing chemotherapy, elderly patients, infants, and wheelchair users. Additionally, blood draw tickets display estimated waiting times, and patients can check queue statuses in real-time via their smartphones, allowing for flexible scheduling. Post-AI optimization, the average waiting time during peak periods has dropped from 6 minutes and 54 seconds to 4 minutes and 7 seconds—a 40% reduction—greatly enhancing patient satisfaction and overall healthcare experience.

KMUH's Department of Laboratory Medicine "GLP Biochemical Automation Track" Utilizes Single-Tube Transport with Car Technology for Intelligent Prioritization of Urgent Cases