CHU Dijon

IBM Decision Optimization Center applied to dynamic hospital data, improving care to needy patients

The Dijon University Hospital Centre, or Centre Hospitalier Universitaire de Dijon (CHU Dijon) in France, is a public hospital with more than 1,770 beds. The hospital provides emergency, diagnosis, treatment and prevention services and employs more than 6,000 physicians, nurses, administrators and support personnel.

The Opportunity
Hospitals with geographically distributed facilities, like Dijon University Hospital Centre (CHU Dijon) in France, face a unique challenge: intra-hospital patient transport. Getting it right can be a logistical nightmare for dispatchers. Facing a 20 percent increase in transport requests but already struggling to respond to up to 750 calls it receives daily, the hospital needed a more efficient way to coordinate, manage and dispatch resources.

What Makes It Smarter
The hospital deployed a planning and dispatching solution that applies optimization models to ever-changing hospital and transport data, helping dispatchers plan, manage and execute hundreds of daily transport requests in real time. Utilizing cartographic software and smart phones, when the system receives a new call, it automatically identifies the closest or most appropriate stretcher-bearer and then transmits the order to the worker, speeding responsiveness while optimizing resources and the distribution of requests.

Real Business Results
The solution improved transport punctuality by 25 percent and decreased wait times for return trips by 8 percent. It also reduced the number of daily kilometers walked by operational staff by more than 33 percent, from 15km to 10km while simultaneously increasing the number of transports per day.
The solution helps allocate the most appropriate stretcher bearers for each request, reducing the economic impact of unused surgery blocks or caregivers over time.

— Jean-Yves Gerbet, CHU Dijon