SIMULATION in HEALTHCARE

INCREASE reliability & availability IMPROVE safety, service & cost



APPLICATION AREAS

MOSIMTEC has completed numerous projects and continues to advance the application of simulation in the healthcare industry.

Facility Design & Capacity Analysis



Healthcare organizations needs to understand how facilities will perform as patient volumes and types change over time. Simulation can be used to understand the required equipment and rooms/beds by department. Simulation has played a key roll in determining the appropriate level of ancillary equipment and space for functions like

housekeeping, food preparation, registration, and elevator bank design to prevent these non-clinical processes from slowing down the system as a whole or interfering with patient care. Simulation is ideal for testing out the green field hospital design, as well as testing the boundaries of a current facility to understand when and if expansion will be needed.

Equipment Selection



Simulation has been successfully utilized to evaluate the cost optimal equipment for individual client's needs. The cost of disposable products, including consumables and reagents, must be balanced with the cost of labor and capital investment. This balance must be evaluated while ensuring the selected solution meets throughput and turn-

around time. Each customer is different, and only a technology like simulation can provide the customized answer required in today's competitive healthcare environment, while still accounting for uncertainty and future changes to demand.

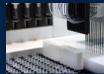
Patient Flow Analysis



Enable teams to develop simulation models for

improving exam, critical care and fast track rooms, patient routes and process times, acuity level distinction, and shift change. Study patients in system, room and staff utilization, and turnaround time.

Medical Device Throughput



Modeling device complexity and high variability in health care

systems make simulation modeling a perfect fit to understand impact of change. Understand why current algorithms may be sub-optimal & test changes to work sequencing.

Staff Schedule Optimization



Traditional scheduling software tools do not account

for variability or complexity of hospital operations. Simulation based scheduling models allow us to explore relationships, model patient throughput, labor utilization and scheduling of labor and assets.

Simulating your healthcare related systems in a virtual environment allows you to develop the necessary insights to make informed decisions.



Call us to setup a webinar **571-766-8050**