Review of Operations Research Improvements in Patient Care Delivery Systems

ABSTRACT

A literature review of operations research in health care identified articles in the field since 1978. Despite major growth in OR in general, few major advances in OR applications in health care were identified. The search incorporated computer databases, ORSA Health Care section resources, and a manual review of key journals. Papers were included that used any of the core methods of operations research. The articles are categorized within a general service operations management framework, including patient scheduling, capacity planning, demand forecasting, system design, site/location selection, supplies/materials planning, vehicle scheduling, workforce staffing and scheduling, strategic planning, and direct patient services. Particular attention was given to workforce staffing and scheduling articles since this area comprises the largest segment of costs and care delivery in institutional settings.