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## Cost savings in hospital materials management: Look-back versus look-ahead inventory policies

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The Hospital Materials Management process deals with the coordination of all activities related to material ordering, holding, and administrating. It is usually treated with a lookback approach, by which materials are pushed into the hospital on the basis of a demand forecast, while high stock levels are distributed throughout the system to prevent stockouts. In this paper, the possibility of reducing stocks while assuring a high service level to patients is analysed proposing an integrated approach to the supply chain. Medical information are used to issue orders (look-ahead approach), in a pulled flow of information from bed to hospital pharmacy warehouses. The two approaches are compared by means of a discrete event simulation in different scenarios: cost savings can range from 2% to 7%; the higher is the demand variability, the greater is the convenience; the savings are slightly influenced by variations in external stockouts and pharmacy ordering costs.

### Biography

Sarno D is a management engineer and PhD in healthcare operations management. From 2014, she is a research assistant in Logistics at the University of Salerno. As a PMI certified project manager, she is the coordinator of a research project financed by the Italian Ministry of Culture about territorial marketing and ICT. She is also a start upper in the field of nanotechnologies for healthcare.

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