

---

## **Editorial**

---

### **Barbara Marchetti\***

Università degli Studi e-Campus,  
Via Isimbardi 10, Novedrate (CO), 22060, Italy  
Email: [barbara.marchetti@unicampus.it](mailto:barbara.marchetti@unicampus.it)  
\*Corresponding author

### **Filippo Emanuele Ciarapica**

DIISM, Università Politecnica delle Marche,  
Via Brezze Bianche, 12, Ancona, 60131, Italy  
Email: [f.ciarapica@univpm.it](mailto:f.ciarapica@univpm.it)

---

Healthcare is a complex industry which is now facing major changes in its structure and its organisation. The global attention to healthcare issues is growing along with the resources allocated to this area (OECD, 2010). Nevertheless, the financial crisis which is hitting Europe and other countries is also imposing a rationalisation of the resources allocated to healthcare services. On the other hand, due to its relevance, the healthcare system must not only pursue efficiency but must also consider the central role of the patient and the quality of health treatments and the environmental impacts of the adopted choices; the problem is that these goals are very difficult to achieve simultaneously.

Process reengineering methods, lean organisation approaches and innovative IT systems can offer a great potential to reach this objectives.

Researchers should focus on the entire supply chain organisation such as aspects related to products purchasing, waste management, material handling and storage, drugs delivery, health services provisions.

This special issue will address different aspects related to modern goals and innovation of supply chain management (SCM) in healthcare such as business process reengineering (BPR) methods for optimising drugs management and distribution; RFID-based management systems, to optimise logistics; the implementation of simulation environment to improve healthcare strategies, levels of service and sustainability by using lean manufacturing principles for waste reduction, design of experiments (DOE) techniques for lowering products environmental impact, eliminating non-value added activities (NVAA), improving supply route and fleet management. Simulation techniques based on dynamic logic and continuous (system dynamics), have been also used for evaluating patients waiting time and proposing strategies for its reduction and consequently improving the flow.

A special attention has been paid to the analysis of the activities management and the effect of corrective actions for improving the logistic aspect and, consequently, minimising the errors occurrences such as delay and potential loss of items; methods for optimising reverse logistic flows in hospitals have also been proposed.

Innovative approaches such as axiomatic design method has been used to develop integrated target system in order to comprehensively redesign healthcare organisation starting from a strict patient value focus and improving operational processes.

Each approach, methodology and strategy that has been proposed by the authors of this special issue gives an important contribution to the knowledge of the issue related to the management of the supply chain in healthcare organisations, as well as of the most innovative instruments available to face them.

## **References**

OECD (2010) *Health at a Glance: Europe 2010*, OECD Publishing [online]  
[http://dx.doi.org/10.1787/health\\_glance-2010-en](http://dx.doi.org/10.1787/health_glance-2010-en).