

Invited Session on:
Operations Research and Supply chain Management in
Healthcare

November 23, 2018

Session chairs:

Prof. Bashiri, Mahdi, Shahed University (IRI)

Assoc. Prof. Abbasi, Babak, RMIT University (AU)

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Session purpose:

Providing healthcare products and services in cost effective manner is an important problem. Therefore, using Operations Research to obtain the best decisions in healthcare can be very helpful and significantly effective to reduce cost. Nowadays, the researches that focuses on applying Operations Research in healthcare increases and there are some reviews in this filed such as Javid et al (2017), Fikar et ali (2016) and Ciss mohammah et al (2017).

In healthcare planning, some parameters are unknown in advance, therefore considering uncertainty is an important aspect in healthcare planning and help managers to make decisions more accurately. While, the numbers of studies related to healthcare by considering uncertainty are small. Based on the types of uncertain parameters different approaches such as stochastic programming and robust optimization are used to deal with them. Also, development of matheuristic algorithms for solving the models in healthcare can be mentioned as a new filed of study. In this type of solution algorithm combination of mathematical model and heuristic or metaheuristic algorithms is used to obtain more accurate solutions.

This Invited Session calls for researches that their contribution is related to applying Operations Research in healthcare. Theoretical contributions that propose mathematical model by considering new aspects or different types of uncertainty in healthcare planning are highly appreciated. In addition, the studies that proposed new solution algorithms such as matheuristic algorithms are welcome.

Session topics:

Based on the above description, sessions' chairs invite researchers, companies and government to

submit their theoretical and applied research papers in the following context:

- Home Healthcare planning,
- Blood supply chain,
- Metaheuristic algorithm for solving models related to Healthcare,
- Robust optimization in Healthcare,
- Stochastic programming in Healthcare,
- Medical drug distribution,
- Designing healthcare supply chain in disaster situations.

References:

1. Ahmadi-Javid, Amir, Pardis Seyedi, and Siddhartha S. Syam. "A survey of healthcare facility location." *Computers Operations Research* 79 (2017): 223-263.
2. Fikar, Christian, and Patrick Hirsch. "Home health care routing and scheduling: A review." *Computers Operations Research* 77 (2017): 86-95.
3. Ciss, Mohamed, et al. "OR problems related to Home Health Care: A review of relevant routing and scheduling problems." *Operations Research for Health Care* 13 (2017): 1-22.