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CALL FOR PAPERS

Special Issue on

Data-driven Integrated Care Planning and Scheduling

Special Issue Editors:

Richard Boucherie, Aleida Braaksma, Derya Demirtas, Nico van Dijk, Erwin Hans, Gréanne Leeftink, Sibel Salman

Submission deadline: ~~December 31st, 2022~~
August 31st, 2023

Healthcare systems are faced with an enormous productivity challenge, as a consequence of demographic developments. Most notably the greying population causes a rise in care demand and increased scarcity in the labor market. This has led to specialization and more concentrated care. Moreover, increasingly better informed patients become more empowered and demanding, which has led to more patient-centered care. These developments necessitate a more networked healthcare sector, with improved coordination and collaboration along the entire patient journey.

Two major performance aspects within healthcare and hospital logistics are the effective utilization or efficiency of capacities (operating rooms, bed availabilities at different intensified levels, necessary equipment and human resources – specialized surgeons, physicians and nurses) and patients' well-being such as in terms of delays, postponements or cancellations, sojourn and waiting times.

Aspects that are inherently conflicting and permanently in demand to be balanced. A crucial complicating factor is the randomness or uncertainty that meanwhile occurs at different levels, from surgery times, emergencies and unavailable capacities at hourly level up to long term demands.

Resource scheduling as well as uncertainty modelling are generally dealt with distinctively; typically by either a deterministic or by a stochastic modeling approach. In practice, however, these are intrinsically related and intertwined. This Special Issue therefore particularly seeks for contributions that aim to embrace and integrate both aspects and approaches, and their applications in settings that span multiple departments or care providers along the patient journey. We particularly welcome contributions that are geared towards implementation, i.e., with real-life data experiments, pilots, collaborations with healthcare providers, etc., to not only bring together the state-of-the-art knowledge, but also bridge the gap between science and impact in practice.

This special issue focuses on *data-driven integrated care planning and scheduling*. We encourage papers introducing new concepts, developing innovative methods and/or presenting innovative uses of operations research methods in all areas of healthcare where integrated care is applicable:

- Health Care Logistics and Supply Chains
- Health Care Resource and Capacity Planning
- Health Care Delivery
- Integrated Workforce Scheduling
- Patient and Appointment Scheduling
- Operating Room Planning and Scheduling
- Paramedical Care Planning and Scheduling
- Emergency Medical Systems
- Home Care, Community Care, and Long Term Care
- Screening and Prevention
- Clinical Pathways
- Cancer Treatment Planning
- Infectious Diseases

Submission Guidelines and Review Process:

Papers must be submitted at <http://www.editorialmanager.com/orsp/> by **August 31st, 2023**. Authors should select “S.I.: Data-driven Integrated Care Planning and Scheduling” during the submission step ‘Additional Information.’ All papers submitted to this special issue should report original work and contribute to the journal OR Spectrum by using a quantitative research paradigm and OR methods. According to the aims of OR Spectrum, high quality papers are sought that match the scope of the journal, demonstrate rigor in the application of state-of-the-art OR techniques, and promise to impact the future work of the OR community.

Papers will be screened by the Editor-in-Chief and one Special Issue Editor. If the paper is deemed to be of sufficient quality, it will be peer-reviewed according to the standards of OR Spectrum by at least two experienced reviewers. We will adopt a rapid and fair review process, striving to provide reviews within three months of submission. Accepted papers will be available online prior to publication of the special issue.

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