

The 33rd International Conference on Operational Research Applied to Health Service ORAHS'2007

15-20/07/2007, Saint Etienne, France

<http://www.emse.fr/orahs>

Preliminary Program

Organized by :



Ecole Nationale
Supérieure des Mines
SAINT-ETIENNE



About ORAHS'2007

ORAHS'2007, sponsored by EURO, ROADEF, GDR-RO, GDR-MACS, is a **unique international conference since over 30 years on engineering and management of health care delivery** including issues related to design and management of health care systems and clinical applications. It aims bringing together researchers, health professionals, IT solution providers and consultants in the area.

Salient features of ORAHS'2007

Following the tradition of ORAHS annual meetings with (i) presentation and debate with local health decision-makers and leaders of research initiatives in health care delivery, (ii) technical presentations, (iii) field visits and tours and (iv) a rich social program.

Feature sessions by several national/regional working groups on management and engineering of health care systems for picturing research in the world on health care engineering.

Presentation of French and European initiatives in both research and education in the area of health care engineering.

A "Project Ideas" of short presentation of 5-10 mins for identifying challenges of health care delivery that need joint European and international research efforts. For information, there is a call for EU projects on "optimizing the delivery of health care" with deadline on September 10.

An intensive tutorial track of 2-days in healthcare delivery engineering including a field visit (July 16-17, 2007). Tutorial talks of 2 hours each by 6 world renown experts (Yasar Ozcan, Mike Carter, Eva Lee, Frank Dexter, Arjan Shahani, Ruth Davies).

Special issues in Annals of Operations Research, Health Care Management Science, International Journal of Healthcare Information Systems & Informatic.

Social Programme

Conference participants	Accompanying person programme
<p>Sunday July 15, 18h00 – 20h00 Welcome party</p> <p>Monday July 16, 19h30 – 21h00 Reception at the City Hall</p> <p>Tuesday July 17, 19h00 – 22h00 TBD</p> <p>Wednesday July 18, 14h00 – 24h00 Excursion to Lyon</p> <ul style="list-style-type: none"> - Visit of the "Vielle Ville", a UNESCO heritage - Boat trip on the Saone River - Diner at the Brasserie Georges of traditional cuisine lyonnaise <p>Thursday July 19, 20h00 – 24h00 Gala diner</p>	<p>Sunday July 15, 18h00 – 20h00 Welcome party</p> <p>Monday July 16 Visit of the city of Saint Etienne Museum of modern art Museum of mining Reception at the City Hall (19h30 – 21h00)</p> <p>Tuesday July 17, 19h00 – 22h00 The city of Le Puy en Velay The gorges of the Loire river Saint Victor sur Loire (a medieval village)</p> <p>Wednesday July 18, 14h00 – 24h00 Excursion to Lyon</p> <ul style="list-style-type: none"> - Visit of the "Vielle Ville", a UNESCO heritage - Boat trip on the Saone River - Diner at the Brasserie Georges of traditional cuisine lyonnaise <p>Thursday July 19 Visit of the Galo-Roman city Vienne Tour in the winery area of Côte Rôtie Gala diner</p>

Scientific Programme

Monday July 16

08h00 09h00	Registration		Tutorial track
09h00 09h30	Opening ceremony		8h30 – 10h20 Frankline Dexter Making tactical (budget/financial) decisions based on allocations of OR block time for outpatient and inpatient surgery
<p>Robert Germinet, Director of ENSM.SE Didier Bernache, Director of the Engineering & Health Division, ENSM.SE Jan Vissers, Chairman of ORAHS Xiaolan XIE, Program chair of ORAHS'2007</p>			
09h30 11h00	<p>Session 1A: Local Health policies and Operations Research in Health care Chair: DEBROSSE, Conseiller Général des Hopitaux , Ministère de la Santé, FR <i>National health policies (SROS, Hôpital 2007-2012)</i> David Bentley, Operational Research Programme Manager, Department of Health, UK <i>OR Contributions and Challenges in Health Care</i></p>		
11h00 11h20	Coffee break		10h20 – 10h40 Coffee break
11h20 12h40	Session 1B: Local Health policies and Operations Research in Health care		10h40 – 12h30 Yasar A. Ozcan Benchmarking & performance evaluation in health care: DEA approach
<p>Chair: Sebastien Woynar, Mission Nationale d'Expertise et d'Audit Hospitaliers (MEAH), FR <i>Evaluation and auditing of French health care systems</i> Michael Carter, University of Toronto, CA <i>The Role of Operations Research in Health Care Planning and Policy Making</i></p>			
12h40 14h00	Lunch		
14h00 15h30	<p>Session 2 - Operating theatre optimization Chair: Frankline Dexter</p> <p>Jeroen M. van Oostrum - Improving OR efficiency by applying bin packing and portfolio techniques to surgical case scheduling Ruth E Wachtel - Reducing tardiness in the start times of surgical cases Frank Dexter, Coordination of Appointments for Anesthesia Care Outside of Operating Rooms Using an Enterprise-Wide Scheduling System Natalie SMITH-GUERIN - Proposal for the planning of the nurses in operating theatre</p>	<p>Session 3 - Patient flow planning Chair: Jan Vissers</p> <p>Jan Vissers - Patient mix optimisation and resource allocation: a case study in cardiothoracic surgery planning Marc Haspeslagh - Patient allocation on the basis of competence: conceptual considerations and measurement difficulties JJW Molema, Improving patient flow in a hospital Stefano Villa - Restructuring patient flow logistics around the level of intensity of care: Implications and practicalities</p>	14h00 – 15h50 Michael Carter Simulation modeling in health care: some examples and lessons learned
15h30 16h30	<p>Session 4: French research initiatives Chair:</p> <p>Michel Baer, SAMU92, APHP, Paris & coordinator of the EU project HESCUAEP <i>HESCUAEP for an improved coordination in a pre-hospital setting</i> Alain Guinet, INSA-Lyon & coordinator of GISEH group <i>Engineering and management of health services</i> Eric Marcon, UJM & coordinator of HRP3 project <i>Engineering the emergency care delivery network</i></p>		
16h30 16h50	Coffee break		
16h50 18h20	<p>Session 5 - New paradigm Chair: Yasar A. Ozcan</p> <p>Luciano Brandao de Souza - Launching Lean Thinking at the University Hospitals of Morecambe Bay NHS Trust in the UK Ruth Davies - Leaning an Emergency Department Frédéric ALBERT, Hospital reorganization: how to help decision makers? Lorna Sinclair - The 48 hour access target for Genitourinary Medicine Clinics: A Generic Discrete Event Simulation Model.</p>	<p>Session 6 - Health informatics & information systems Chairs: F. Laforest and C. Verdier</p> <p>David Télisson - Ambient intelligent and pervasive architecture designed within the EPI-MEDICS personal ECG monitor Françoise Vendittelli - The AUDIPOG Sentinel Network: a Tool Built by Perinatal Professionals for Professionals Michel Lamure, TBD Javaux N. Computerized Medical File at patient's bedside</p>	
19h30 21h00	Reception at the City Hall		

Tuesday July 17

08h30 10h00	Session 7 - Staffing and capacity planning I Chair: Sally Brailsford G. Celano - Using simulation to test the staffing reconfiguration in a speech therapy ambulatory care Mariel S. Lavieri - Optimizing nursing human resource planning Gergely Mincsovcis - Stochastic Dynamic Nursing Service Budgeting Sally Brailsford , Modelling the effects of workforce change in emergency care in the UK	Session 8 - Health information systems I Chair: Paul Harper Red Ceglowski - Text mining emergency department “reason for presentation” data Paul Harper - TreeFit: the development and use of a powerful decision tree data mining tool Lei Zhao , The Impact of Clinical Decisions in In Vitro Fertilization-Embryo Transfer Joseph Tan - Using E-Health for Physicians’ Decision Making to Combat HIV/Aids in Sub-Saharan African	Tutorial track
10h00 10h20	Coffee break		
10h20 11h50	Session 9 - Healthcare delivery engineering in Mediterranean Chair: Aida Jebali Sondes HAMMAMI - Supplying the operating theatre: disposables products or reused products Hanen BOUCHRIHA - Toward a decision tool for home care planning Aida Jebali , A mathematical model for the “make” or “buy” decision in the hospital sterilization 11h50 Sondes Hammami - Joint Replenishment for the Operating Room	Session 10 - Modelling and simulation I Chair: John T. Blake Brijesh PATEL - Taxonomy of modelling and simulation methods in healthcare: emerging findings of the Research Into Global Healthcare Toolkit (RIGHT) Dave Worthington - What is a 'generic' hospital model? Vincent Augusto , A simulation framework for health care systems John T. Blake - Getting OR Tools into the Hands of Users: Development of a Blood Donor Clinic Simulation	8h30 – 10h20 Ruth Davies Fit for purpose - a taxonomy of models for disease modelling 10h20 – 10h40 Coffee break 10h40 – 12h30 Eva Lee Optimization in Medicine and HealthCare
11h50 12h40	Plenary talk Chair : Robert Reichert – Director – CEO, CHU-Saint Etienne, France <i>Reengineering a large teaching hospital</i>		
12h40 14h00	Lunch		
14h00 17h00	Field visit at the CHU-Saint Etienne - Visit of an automated biological examination platform - Visit of the new operating theatre - Visit of the logistic department		
17h30 19h00	Session 11: Project ideas for international collaborative research Chair: Program to be announced.		

Wednesday July 18

08h30	Session 12. Software solutions in health care Chair : Bart Veltman (ORTEC, NL) TBD	
09h20	Sofiane Oussedik (ILOG, FR) Building Interactive Decision Aid applications, a Nurse Scheduling case study	
09h20	Session 13 - Staffing and capacity planning II Chair: Arjan Shahani Md. Asaduzzamany - Capacity Planning Issues in Neonatal Care Networks in UK: A Case Study on North Central London Perinatal Network Christina Pagel - The dynamic forecasting of short to medium term workload based on current case mix WANG Tao - A sizing tool for allocation planning of hospital bed resources A K Shahani , Detailed Models for Capacities and Organisation of Critical Care Units for Cardiac Patients	Session 14 - Emergency care Chair: Mario Jorge Ferreira de Oliveira Aissam Belaidi - Identifying and Modelling decision problems for emergency network in France: a literature review and analysis Ali Vahit Esensoy - Evaluation of Ambulance Transfers Into Urgent Care Centres To Improve Ambulance Availability & Reduce Offload Delays Ana Paula Iannoni , Analyzing large scale emergency medical systems on highways using an approximated hypercube queuing model Mario Jorge Ferreira de Oliveira - The accessibility and quality of the emergency service of a public hospital in the municipality of Resende, Rio de Janeiro
10h50		
10h50 11h10	Coffee break	
11h10	Session 15 - Operating rooms planning I Chair: Erik Demeulemeester Mehdi LAMIRI - Surgery Planning with Uncertain Operating Times Brecht Cardoen - Determining surgery schedules on the operational level through column generation Angela Testi , Planning surgical activities: a societal point of view Hanset A. - Limited-time decision making with Tabu search for an operating theatre daily scheduling problem	Session 16 - Modelling and simulation II Chair: Martin Pitt Philip Ruttle - An examination of preoperative assessment using simulation modelling Mario Jorge Ferreira de Oliveira - The multi-user simulation of the emergency department of Brazilian hospital: three views of the admission process Nathalie Grangeon , Modelling and simulation of logistic flows Martin Pitt - Addressing the model-decision making interface – A key requirement for operational research in healthcare
12h40		
12h40 14h00	Lunch	
14h00	Social outing: Excursion to Lyon - Visit of the "Vielle Ville", a UNESCO heritage - Boat trip on the Saone River - Diner at the Brasserie Georges of traditional cuisine lyonnaise	
24h00	plus a lot of fun and songs for making friends.	

Thursday July 19

09h00	<p>Session 17 - Operating rooms planning II Chair:</p> <p>Hongying Fei - Exploring the analogs and differences between the industrial logistic system and the patient support system in the operating theatre R. Velasquez - Solving the multi-criteria next-day elective surgery scheduling problem Riitta A. Marjamaa - Different workflow models and resource allocation for operating room</p>	<p>Session 18 - Location and transportation planning Chair: Stefan Nickel</p> <p>Honora K. Smith - Location modelling for community healthcare facilities Giuliana Carello - Ambulance location through optimization and simulation: the case of Milano urban area Olivier PETON, Designing a decision support system for the transportation of disabled persons Stefan Nickel - Planning Patient Transports in Hospitals</p>
10h30	<p>Jeroen Belien - Design and implementation of heuristic procedures for multi-objective master surgery scheduling</p>	
10h30 10h50	<p>Coffee break</p>	
10h50	<p>Session 19 - Optimization of core hospital resources in the Netherlands Chair: E.W. Hans</p> <p>Jan A.M. Hontelez - Simulation of appointment-based systems in hospitals P. Joustra - Applying simulation to reduce access times for radiotherapy treatment E. Bredehoff, Focused Factories in Hospital Care? Using OR/OM to study feasibility and impact</p>	<p>Session 20 - Performance assessment Chair: Peter Williams</p> <p>Thierry Chausalet - Modelling Readmission: A multilevel transition model approach for new performance indicators Yasar A. Ozcan - The use of data envelopment analysis (DEA) for evaluation of Brazilian teaching hospitals Guangfu Tai, A Modelling Technique for Evaluating Operational Performance of Capacity Balance in a Multi-Level Healthcare System Sophie RODIER - Obstetrical theatre suite modelling and simulation</p>
12h20	<p>E.W. Hans - Integrated planning of operating rooms and wards in an ambulatory clinic</p>	
12h20 13h50	<p>Lunch</p>	
13h50	<p>Session 21 - Disease modelling and clinic pathway Chair: ZhiBin JIANG</p> <p>Crina Tabita Nicolescu - Diabetes network modelling: A System dynamics approach Ursula-Anna Schmidt - Process improvement in hospitals – Clinical Pathways and appointment planning JIANG ZhiBin, The Framework of Clinical Pathway Adaptive Workflow Management System Véronique DESLANDRES - A decision support system for clinical pathways analysis Martin Utley - Better out than in? The use of a simple mathematical model to assess the evidence concerning resection of lung metastases from colorectal tumours</p>	<p>Session 22 - Health information systems II Chair: Joseph Tan</p> <p>Joseph Tan - Evaluating User Acceptance and User Satisfaction of Healthcare IT using Formal Models Ali LARAB - Home health care system for dependent people: application to Alzheimer disease Marek Lubicz - Modelling and Information Technologies for Funding Hospital Care System at Lower Silesia in Poland: Current Issues, Classifications, Priorities, Allocation Nathalie CISLO - Fall detection for elderly people: State of the Art and Open Issues Ikram ELAZAMI- Approach based on Patterns for the Mediation between Hospital Information Systems</p>
15h50	<p>Martin Utley - Better out than in? The use of a simple mathematical model to assess the evidence concerning resection of lung metastases from colorectal tumours</p>	
15h50 16h10	<p>Coffee break</p>	
16h10	<p>Session 23 - Organisational issues Chair: Marion Rauner</p> <p>Marion S. Rauner - Using Operations Research Techniques for Internet-based Hospital Games I.J. Baars, Planning and control in outpatient mental health care Lucas Delesie - CHECKS AND BALANCES Penelope Mullen, A little knowledge is.....a good thing N. Ravichandran - Operations Research and Health Care: An Opportunity Assessment in the Indian Context</p>	<p>Session 24 - Work Organisation I Chair: Hari Balasubramanian</p> <p>Hari Balasubramanian - A metaheuristic simulation-optimization approach to improving primary care access Korina Katsaliaki - Reconfiguring the Operations of a Pediatric Intensive Care Unit (PICU) Alexandre Mazier, Scheduling preparation of doses for a chemotherapy service Farida Bouhamou - Generating master surgical schedule using integer programming Steve Burnell - I Improving access to psychological therapies</p>
18h10		
20h00	<p>Gala diner</p>	
24h00		

Friday July 20

08h40	<p>Session 25 - Stochastic models Chair: Martin Utley</p> <p>S. Ketabi - A Study on the Discharge Process at Kashani Hospital, Isfahan, Iran via Computer Simulation Luiz Guilherme Nadal Nunes - Markov decision process applied to the control of admissions in elective hospitals STEFAN CREEMERS - The Impact of service epochs on waiting times in a healthcare environment</p>	<p>Session 26 - Work Organisation II Chair: Michel Gourgard</p> <p>Sima Ajami - Queue on discharge process in Beheshti hospital in Iran Roberto Aringhieri - Efficient Team Planning at Emergency Medical Service of Milano Nathalie CISLO, Home Healthcare Process: Challenges and Open Issues E.G.E. Leers - Optimizing decisions on work organization in intellectual disability care</p>
10h10	<p>Khanh Ngo Cong, Use of stochastic models in health care: a survey</p>	
10h10 10h30	Coffee break	
10h30 12h00	<p>Session 27 - Hospital supply chains Chair: Alain Guinet and Armand BABOLI</p> <p>Salma Chahed - What about operations research opportunities in the home care domain? Julien Fondrevelle - Centralized and decentralized replenishment policies considering inventory and transportation in a two-echelon pharmaceutical downstream supply chain Anissa MAKHLOUF, Application of bayesian network model to a healthcare process : sterilization process of medical devices Ali MEHRABI - The effect of leadtime information sharing on safety stock in a downstream pharmaceutical supply chain</p>	<p>Session 28 - Patient safety and quality of care Chair: Eva Lee</p> <p>Evrin Didem Gunes - Quality Competition for Screening and Treatment Services Jacques J. - Patient Safety Evaluation in Belgian Hospitals starting from the AHRQ Patient Safety Indicators (PSI) Juha-Matti Lehtonen - Speed and quality in Coronary Artery Bypass Graft (CABG) surgery: is there a connection? POURREAU Aurélie - Analysis and management of adverse events related to central venous catheter in intensive care units</p>
12h00	Closing session	
13h00	<p>Chair: Jan Vissers</p> <p>Concluding remarks and post-conference publications of ORAHS'2007 Introduction of ORAHS'2008 Applications for organization of ORAHS'2009 Other ORAHS group affaires</p>	
13h00 14h30	Lunch	

Session 1: Local Health policies and Operations Research in Health care

MON – 16th 09h30 – 12h40

Chair:

DEBROSSE, Conseiller Général des Hopitaux , Ministère de la Santé, FR
National health policies (SROS, Hôpital 2007-2012)

David Bentley, Operational Research Programme Manager, Department of Health, UK
OR Contributions and Challenges in Health Care

Sebastien Woynar, Mission Nationale d'Expertise et d'Audit Hospitaliers (MEAH), FR
Evaluation and auditing of French health care systems

Michael Carter, University of Toronto, CA
The Role of Operations Research in Health Care Planning and Policy Making

Feature session 2: Operating theatre optimization

MON – 16th 14h00 – 15h30

Organizer and Chair: Frankline Dexter (US)

Improving OR efficiency by applying bin packing and portfolio techniques to surgical case scheduling
Jeroen M. van Oostrum and Gerhard Wullink (NL)

Reducing tardiness in the start times of surgical cases
Ruth E Wachtel and Franklin Dexter (US)

Coordination of Appointments for Anesthesia Care Outside of Operating Rooms Using an Enterprise-Wide Scheduling System
Franklin Dexter and Ruth E. Wachtel (US)

Proposal for the planning of the nurses in operating theatre (**regular paper**)
Natalie SMITH-GUERIN, Nathalie Cislo, Selma Arbaoui (FR)

Session 3: Patient flow planning

MON – 16th 14h00 – 15h30

Chair: Jan Vissers (NL)

Patient mix optimisation and resource allocation: a case study in cardiothoracic surgery planning
Ivo Adan, Jos Bekkers, Nico Dellaert, **Jan Vissers**, Xiaoting Yu (NL)

Patient allocation on the basis of competence: conceptual considerations and measurement difficulties
Marc Haspeslagh, Luc Delesie and Paul Igodt (BE)

Improving patient flow in a hospital
JJW Molema, S Groothuis, GG van Merode (NL)

Restructuring patient flow logistics around the level of intensity of care: Implications and practicalities
Stefano Villa, Marta Barbieri, Federico Lega (IT)

Session 4: French research initiatives

MON – 16th 15h30 – 16h30

Chair:

Michel Baer, SAMU92, APHP, Paris & coordinator of the EU project HESCUAEP
HESCUAEP for an improved coordination in a pre-hospital setting

Alain Guinet, INSA-Lyon & coordinator of GISEH group
Engineering and management of health services

Eric Marcon, UJM & coordinator of HRP3 project
Engineering the emergency care delivery network

Session 5: New paradigm

MON – 16th 16h50 – 18h20

Chair: Yasar A. Ozcan (US)

Launching Lean Thinking at the University Hospitals of Morecambe Bay NHS Trust in the UK
Luciano Brandao de Souza and Michael Pidd (UK)

Leaning an Emergency Department
Ruth Davies (UK)

Hospital reorganization: how to help decision makers?
Frédéric ALBERT, Lorraine TRILLING, Eric MARCON (FR)

The 48 hour access target for Genitourinary Medicine Clinics: A Generic Discrete Event Simulation Model.
David Bensley and **Lorna Sinclair** (UK)

Feature session 6: Health informatics and information systems

MON – 16th 16h50 – 18h20

Organizers and chairs: Frédérique Laforest and Christine Verdier (FR)

Ambient intelligent and pervasive architecture designed within the EPI-MEDICS personal ECG monitor
Hussein Atoui and **David Télisson** (FR)

The AUDIPOG Sentinel Network: a Tool Built by Perinatal Professionals for Professionals
Françoise Vendittelli, Catherine Crenn-Hébert, Olivier Claris, Bernard Maria, Michel Collet, Bernard Jacquetin.

Michel Lamure, TBD

Computerized Medical File at patient's bedside (regular paper)
Javaux N., Lejeune C., Lenaerts E., Menager D., Raze M., Simon I., Louis P., Kolh P. (BE)

Session 7: Staffing and capacity planning I

TUE – 08h30 – 10h00

Chair: Sally Brailsford (UK)

Optimizing nursing human resource planning
Mariel S. Lavieri and Martin L. Puterman (CA)

Stochastic Dynamic Nursing Service Budgeting (**Feature session** "Optimization of core hospital resources in the Netherlands")
Gergely Mincsovics and Nico Dellaert (NL)

Modelling the effects of workforce change in emergency care in the UK
Sally Brailsford (UK)

Using simulation to test the staffing reconfiguration in a speech therapy ambulatory care
G. Celano, I. Messineo, S. Fichera (IT)

Session 8: Health information systems I

TUE – 08h30 – 10h00

Chair: Paul Harper (UK)

Text mining emergency department "reason for presentation" data
Red Ceglowski; Leonid Churilov (AU)

TreeFit: the development and use of a powerful decision tree data mining tool.
Evandro Leite and **Paul Harper** (UK)

The Impact of Clinical Decisions in In Vitro Fertilization-Embryo Transfer
Lei Zhao, Miao He, Yue Zhang (CN)

Using E-Health for Physicians' Decision Making to Combat HIV/Aids in Sub-Saharan African
Sanjay P. Sood, Oneurine Ngwa, Billy Ruhweza, Victor Mbarika, **Joseph Tan** (US)

Feature session 9: Healthcare delivery engineering in Mediterranean

TUE – 10h20 – 11h50

Organizer and chair: Aida Jebali (TN)

Supplying the operating theatre: disposables products or reused products

Sondes HAMMAMI, Imène ELHACHFI ESSOUSSI, Pierre LADET, Angel RUIZ (TN)

Toward a decision tool for home care planning

Hanen BOUCHRIHA, Aïda JEBALI, Emna BENZARTI (TN)

A mathematical model for the “make” or “buy” decision in the hospital sterilization

Houda Tlahig, **Aida Jebali**, Hanen Bouchriha, Pierre Ladet (TN)

Joint Replenishment for the Operating Room

Sondes Hammami, Pierre Ladet, Angel Ruiz, Atidel B. Hadj-Alouane (TN)

Session 10: Modelling and simulation I

TUE – 10h20 – 11h50

Chair: John T. Blake (CA)

Taxonomy of modelling and simulation methods in healthcare: emerging findings of the Research Into Global Healthcare Toolkit (RIGHT)

Sally BRAILSFORD, Paul HARPER and **Brijesh PATEL** (UK)

What is a 'generic' hospital model?

Adrian Fletcher and **Dave Worthington** (UK)

A simulation framework for health care systems

Vincent Augusto, Xiaolan Xie and Frédéric Grimaud (FR)

Getting OR Tools into the Hands of Users: Development of a Blood Donor Clinic Simulation

John T. Blake, Candy Lipton (CA)

Session 11: Project ideas for international collaborative research

TUE – 17h30 – 19h00

Chair:

Program to be announced.

Session 12. Software solutions in health care

WEN – 08h30 – 09h20

Chair :

Bart Veltman (ORTEC, NL)

TBD

Sofiane Oussedik (ILOG, FR)

Building Interactive Decision Aid applications, a Nurse Scheduling case study

Session 13: Staffing and capacity planning II

WEN – 09h20 – 10h50

Chair: Arjan Shahani (UK)

Capacity Planning Issues in Neonatal Care Networks in UK: A Case Study on North Central London Perinatal Network

Md. Asaduzzamany, Thierry J. Chausalet, Haifeng Xie, Nikki Robertson and Daniel Wood (UK)

The dynamic forecasting of short to medium term workload based on current case mix

Christina Pagel, Martin Utley, Steve Gallivan (UK)

A sizing tool for allocation planning of hospital bed resources

WANG Tao and Alain GUINET (FR)

Detailed Models for Capacities and Organisation of Critical Care Units for Cardiac Patients

A K Shahani, J Harbord, M S Nielsen (UK)

Session 14: Emergency care**WEN – 09h20 – 10h50**

Chair: Mario Jorge Ferreira de Oliveira (BR)

Identifying and Modelling decision problems for emergency network in France: a literature review and analysis.

Aissam Belaidi, Béatrix Besombes, Eric Marcon, Alain Guinet (FR)

Evaluation of Ambulance Transfers Into Urgent Care Centres To Improve Ambulance Availability & Reduce Offload Delays

Ali Vahit Esensoy and Michael W. Carter (CA)

Analyzing large scale emergency medical systems on highways using an approximated hypercube queuing model

Ana Paula Iannoni, Reinaldo Morabito, Cem Saydam (BR)

The accessibility and quality of the emergency service of a public hospital in the municipality of Resende, Rio de Janeiro

Francisco Santos Sabbadini, Antônio Augusto Gonçalves, **Mario Jorge Ferreira de Oliveira** (BR)**Session 15: Operating rooms planning I****WEN – 11h10 – 12h40**

Chair: Erik Demeulemeester (BE)

Surgery Planning with Uncertain Operating Times

Mehdi LAMIRI and Xiaolan XIE (FR)

Determining surgery schedules on the operational level through column generation

Brecht Cardoen, Erik Demeulemeester, Jeroen Belien (BE)

Planning surgical activities: a societal point of view

Angela Testi, Anna Sciomachen, Elena Tanfani (IT)

Limited-time decision making with Tabu search for an operating theatre daily scheduling problem.

Hanset A., Roux O., Fei H., Duvivier D., Meskens N. (BE)**Session 16: Modelling and simulation II****WEN – 11h10 – 12h40**

Chair: Martin Pitt (UK)

An examination of preoperative assessment using simulation modelling

Philip Ruttle and Peter Williams (IE)

The multi-user simulation of the emergency department of Brazilian hospital: three views of the admission process

Adriana Bandeira Moraes, **Mario Jorge Ferreira de Oliveira**, Sheila Monteiro Elias Espósito (BR)

Modelling and simulation of logistic flows

Virginie André, **Nathalie Grangeon**, Sylvie Norre (FR)

Addressing the model-decision making interface – A key requirement for operational research in healthcare

Martin Pitt (UK)**Session 17: Operating rooms planning II****THU – 09h00 – 10h30**

Chair:

Exploring the analogs and differences between the industrial logistic system and the patient support system in the operating theatre

Hongying Fei, Nadine Meskens (BE)

Solving the multi-criteria next-day elective surgery scheduling problem

R. Velasquez and M. T. Melo (DE)

Different workflow models and resource allocation for operating room

Riitta A. Marjamaa and Paulus M. Torkki (FI)

Design and implementation of heuristic procedures for multi-objective master surgery scheduling

Jeroen Belien, Erik Demeulemeester, Brecht Cardoen (BE)

Session 18: Location and transportation planning**THU – 09h00 – 10h30**

Chair: Stefan Nickel (DE)

Location modelling for community healthcare facilities

Honora K. Smith, Paul R. Harper, Chris N. Potts (UK)

Ambulance location through optimization and simulation: the case of Milano urban area

Roberto Aringhieri, **Giuliana Carello** and Daniela Morale (IT)

Designing a decision support system for the transportation of disabled persons

Olivier PETON, Pierre DEJAX, Fabien LEHUEDE, Marc MARHADOUR, Claire PAVAGEAU (FR)

Planning Patient Transports in Hospitals

Alexandre Beaudry, Gilbert Laporte, Teresa Melo, and **Stefan Nickel** (DE)**Feature session 19: Optimization of core hospital resources in the Netherlands****THU – 11h00 – 12h30**

Organized by E.W. Hans (NL)

Simulation of appointment-based systems in hospitals

Jan A.M. Hontelez and Sylvia G. Elkhuizen (NL)

Applying simulation to reduce access times for radiotherapy treatment.

P. Joustra, R. Kolfin, P. Bakker (NL)

Focused Factories in Hospital Care? Using OR/OM to study feasibility and impact

E. Bredenhoff and W. van Rossum

Integrated planning of operating rooms and wards in an ambulatory clinic

E.W. Hans, E. Bredenhoff, J. van Oostrum**Session 20: Performance assessment****THU – 11h00 – 12h30**

Chair: Peter Williams (IE)

Modelling Readmission: A multilevel transition model approach for new performance indicators

Eren Demir, **Thierry Chaussalet**, Haifeng Xie, Peter H. Millard (UK)

The use of data envelopment analysis (DEA) for evaluation of Brazilian teaching hospitals

Yasar A. Ozcan, Marcos Estellita Lins, Maria Stella de Castro Lobo, Angela Cristina, Moreira da Silva, Roberto Fiszman, Basilio Bragança Pereira (US/BR)

A Modelling Technique for Evaluating Operational Performance of Capacity Balance in a Multi-Level Healthcare System

Guangfu Tai and Peter Williams (IE)

Obstetrical theatre suite modelling and simulation

Michelle CHABROL, Michel GOURGAND, **Sophie RODIER** (FR)**Session 21: Disease modelling and clinic pathway****THU – 14h00 – 16h00**

Chair: ZhiBin JIANG (CN)

Diabetes network modelling: A System dynamics approach

Crina Tabita Nicolescu and Ann van Ackere (CH)

Process improvement in hospitals – Clinical Pathways and appointment planning

Stefan Nickel and **Ursula-Anna Schmidt** (D)

The Framework of Clinical Pathway Adaptive Workflow Management System

Gang Du, Xiaodi Diao, **Zhibin Jiang**, and Yan Ye (CN)

A decision support system for clinical pathways analysis

Véronique DESLANDRES, Haytham ELGHAZEL, Kassem KALLEL, Alain DUSSAUCHOY (FR)

Better out than in? The use of a simple mathematical model to assess the evidence concerning resection of lung metastases from colorectal tumours.

Martin Utley and Tom Treasure (UK)

Session 22: Health information systems II

THU – 14h00 – 16h00

Chair: Joseph Tan (US)

Evaluating User Acceptance and User Satisfaction of Healthcare IT using Formal Models

Kai Zheng and **Joseph Tan** (US)

Home health care system for dependent people: application to Alzheimer disease.

Ali LARAB, Ali RAMMAL, Sylvie TROUILHET, Jean-Marie PECATTE and Nicolas SINGER (FR)

Modelling and Information Technologies for Funding Hospital Care System at Lower Silesia in Poland: Current Issues, Classifications, Priorities, Allocation

Marek Lubicz (PL)

Fall detection for elderly people: State of the Art and Open Issues

Nathalie CISLO, Natalie SMITH-GUERIN, Selma ARBAOUI (FR)

Approach based on Patterns for the Mediation between Hospital Information Systems (Feature session "Healthcare delivery engineering in Mediterranean")

Ikram ELAZAMI, Driss DOUKKALI, Ouçamah CHERKAOUI (MA)

Session 23: Organisational issues

THU – 16h30 – 18h00

Chair: Marion Rauner (AT)

Using Operations Research Techniques for Internet-based Hospital Games

Marion S. Rauner, Markus Kraus, Joerg Gesslbauer, Sigrun Schwarz (AT)

Planning and control in outpatient mental health care

I.J. Baars, G.G. van Merode and A. Arntz (NL)

CHECKS AND BALANCES

Lucas Delesie, Kristof Eeckloo, Arthur Vleugels (BE)

A little knowledge is.....a good thing

Penelope Mullen (UK)

Operations Research and Health Care: An Opportunity Assessment in the Indian Context

N. Ravichandran (IN)

Session 24: Work Organisation I

THU – 16h30 – 18h00

Chair: Hari Balasubramanian

A metaheuristic simulation-optimization approach to improving primary care access

Hari Balasubramanian, Ritesh Banerjee and Brian Denton (US)

Reconfiguring the Operations of a Pediatric Intensive Care Unit (PICU)

Korina Katsaliaki, Sally Brailsford and Terry Williams (UK)

Scheduling preparation of doses for a chemotherapy service

Alexandre Mazier, Jean-Charles Billaut, Jean-Francois Tournamille (FR)

Generating master surgical schedule using integer programming

Farida Bouhamou, Sondes Chaabane, Christian Tahon, Sylvain Piechowiak (FR)

Improving access to psychological therapies
Steve Burnell (UK)

Session 25: Stochastic models

FRI – 08h40 – 10h10

Chair: Martin Utley (UK)

A Study on the Discharge Process at Kashani Hospital, Isfahan, Iran via Computer Simulation
S. Ketabi and S. Ajami (IR)

Markov decision process applied to the control of admissions in elective hospitals
Luiz Guilherme Nadal Nunes, Solon Venâncio de Carvalho, Rita de Cássia Meneses Rodrigues (BR)

The Impact of service epochs on waiting times in a healthcare environment
STEFAN CREEMERS and MARC LAMBRECHT (BE)

Use of stochastic models in health care: a survey
Khanh Ngo Cong, Maria Di Mascolo, Alexia Gouin (FR)

Session 26: Work Organisation II

FRI – 08h40 – 10h10

Chair: Michel Gourgand (FR)

Queue on discharge process in Beheshti hospital in Iran
Sima Ajami, Saedeh Ketabi, N. Kakaei, A. Mirallaei (IR)

Efficient Team Planning at Emergency Medical Service of Milano
Roberto Aringhieri (IT)

Home Healthcare Process: Challenges and Open Issues
Selma ARBAOUI, **Nathalie CISLO**, Natalie SMITH-GUERIN (FR)

Optimizing decisions on work organization in intellectual disability care
E.G.E. Leers, G.G. van Merode and L.M.G. Curfs (NL)

Feature session 27: Hospital supply chains

FRI – 10h30 – 12h00

Organizers and Chairs: Alain Guinet and Armand BABOLI (FR)

What about operations research opportunities in the home care domain?
Salma Chahed, Eric Marcon, Evren Sahin, Yves Dallery (FR)

Centralized and decentralized replenishment policies considering inventory and transportation in a two-echelon pharmaceutical downstream supply chain
Armand Baboli, **Julien Fondrevelle**, Mohammadali Pirayesh Neghab, Ali Mehrabi

Application of bayesian network model to a healthcare process : sterilization process of medical devices
Anissa MAKHLOUF, Jean-Pierre GRANDHAYE (FR)

The effect of leadtime information sharing on safety stock in a downstream pharmaceutical supply chain
Ali MEHRABI, Armand BABOLI, Jean-Pierre CAMPAGNE (FR)

Session 28: Patient safety and quality of care

FRI – 10h30 – 12h00

Chair: Eva Lee (US)

Quality Competition for Screening and Treatment Services
Evrin Didem Gunes, Stephen E. Chick and Luk N. Van Wassenhove (TU)

Speed and quality in Coronary Artery Bypass Graft (CABG) surgery: is there a connection?

Juha-Matti Lehtonen, Mikko Hippeläinen, Eija Kattainen, Juhani Kouri, Jaakko Kujala (FI)

Analysis and management of adverse events related to central venous catheter in intensive care units

POURREAU Aurélie, PIATYSZEK Eric, BERTHELOT Philippe, LONDICHE Henry (FR)

Patient Safety Evaluation in Belgian Hospitals starting from the AHRQ Patient Safety Indicators (PSI)

Jacques J., Gillet P., Meeus P., Haelterman G., Mertens I., Legrand J., Wijmeersch K., Louis P., Kolh P. (BE)