

Contents of *Technology and Health Care* Volume 1

No. 1

Editorials

- Technology and Health Care* Official Journal of the European Society for Engineering and Medicine: A New Journal
P.F. Niederer 1
- The European Society for Engineering and Medicine (ESEM) fills a need in Europe
J.E.W. Beneken 5

Regular Papers

- Ageing and brain: clinical perspectives of PET
A.A. Lammertsma, G.V. Sawle and R.S.J. Frackowiak 11
- Micro-computers in the assessment and rehabilitation of brain-damaged patients
F.J. Stachowiak 19
- Diseases of the circulatory system: mechanical assistance
D. Loisance 45
- Early detection of osteoarthritis by 3D computed tomography
P. Rügsegger, B. Münch and M. Felder 53
- The scope of minimally invasive pediatric surgery (MIPS) and its influence on reduced length of hospitalization
K. Schaarschmidt, P. Pattyn, J. Schlee, I. Kerremans, U. Stratmann and G.H. Willital 67

Mini Symposium

- Towards objective medical decisions with the aid of knowledge based systems
F.T. de Dombal 75
- Background and current state-of-the-art
F.T. de Dombal 77
- Clinicians' requirements. 1. A pragmatic operational viewpoint
N. Zoltie 85
- Clinicians' needs and requirements. 2. Conceptual comments
J. Henriques 89
- Current relevant developments in information technology
G. Maunder and P. Cusimano 93
- Safety and security
J. Davey 99
- Quality and its evaluation
O. Winding, S. Clamp and C. Ohmann 101
- Discussion and conclusions
F.T. de Dombal 107

EC Research Programme

THE EC Biomedical and health research programme BIOMED (1991–1994)
V. Thévenin 109

Guide for Authors 113

Announcement from the Publisher 115

No. 2

Economic and social impact of medical technology. Opening Lecture Second European Conference on Engineering and Medicine Stuttgart, April 25–28, 1993
M. Arnold 117

Multicentre European COMAC-BME study on the standardisation of bone densitometry procedures
J. Dequeker, J. Reeve, J. Pearson, J. Bright, D. Felsenberg, W. Kalender, C. Langton, A.M. Laval-Jeantet, P. Rüegsegger, G. van der Perre and the COMAC-BME Quantitative Assessment of Osteoporosis Study Group 127

Mechanism of muscle contraction
L. Skubiszak 133

High resolution CT of the lungs: Proper mA s settings for clinical use
M.-L. Majurin, A. Kiuru, E. Svedström, T. Kurki and H. Helenius 143

Design of spherical carbon adsorbent for extracorporeal detoxification
S. Rosinski, J. Sentek and D. Lewinska 155

Application of gel-integrated macroporous hydroxyapatite in the treatment of marginal periodontitis
B.-M. Kleber 159

Hemolysis in fresh human blood with a new hemoperfusion pump to prevent myocardial ischemia during coronary angioplasty
E.D. De Muinck, J.G. Meeder, C.P.E. Magielse, V.J.J. Bom, G.J. Verkerke and K.I. Lie 165

“Chromosome”: a knowledge-based system for the chromosome classification
G. Ramstein and M. Bernadet 171

A 3-D moment based approach for blood vessel detection and quantification in MRA
P. Reuzé, J.L. Coatrieux, L.M. Luo and J.L. Dillenseger 181

Calendar 189

No. 3**Research in Europe**

What is the European Community doing with Eastern Europe in the field of Science and Technology?
P. Venet 191

Original Papers

Flow dynamic effect of the anastomotic angle: a numerical study of pulsatile flow in vascular graft anastomoses models
K. Perktold, H. Tatzl and G. Rappitsch 197

Performance assessment of a range of commercial jet nebulisers
P.K. Hurley and S.W. Smye 209

Miniaturized integrated biosensors
G. Urban, G. Jobst, F. Keplinger, E. Aschauer, R. Fasching and P. Svasek 215

Laser diode coupled with optical fiber for applications in photodynamic therapy
W. Cecchetti, R. Biolo and G. Jori 219

	305
Computer-supported device for histomorphometric investigations on laser-surgery <i>H. Visser, R. Mausberg, T. Aschoff, A. Jäger, E. Hornecker and W. Krüger</i>	223
An ARX model for light propagation in biological tissue <i>L. Muller, Y. Granjon and E. Yvroud</i>	227
VentEx: an on-line knowledge-based system to support ventilator management <i>N. Shahsavari, H. Gill, U. Ludwigs, A. Carstensen, H. Larsson, O. Wigertz and G. Matell</i>	233
No. 4	
Research in Europe	
Adding decision support to a clinical information system <i>P. Bågenholm, K. Anderskär, H. Gill, K.Å. Jönsson and O. Wigertz</i>	245
Computer supported patient management <i>H.J. Tange, M.C. Vissers, A. Hasman, H.H.L.M. Donkers and C.J. V.d. Linden</i>	253
Clinical information process units (CIPUs) – a system ergonomic approach to medical information systems <i>W. Friesdorf, F. Groß-Alltag, S. Konieczky and K. Arndt</i>	265
Problem-oriented data presentation and navigation in an ICU information system: a system ergonomic approach <i>H.-J. Popp, E. Schmitz, B. Thull, G. Rau, P. Hanrath and S. Effert</i>	273
Original Paper	
Automatic compensation of endotracheal tube resistance in spontaneously breathing patients <i>B. Fabry, J. Guttmann, L. Eberhard and G. Wolff</i>	281
Editorial Introduction	293
Announcement	294
Discussion paper	
Medical technology and research: an engineer's view <i>G. Van der Perre</i>	295
Author Index	301
Keyword Index	302
Contents of <i>Technology and Health Care</i>, Volume 1	303