

# europaean medical physics news

Published by the European Federation  
of Organisations for Medical Physics (EFOMP)

## Contents

Report from Council	1
Bordeaux, 1983	2
Forthcoming meetings	5
Cardiac defibrillators	2
HPA Anniversary	2
International List of Comparative Reports and Market Surveys	3

## Report from Council

The 4th EFOMP Council meeting was held at the Hospital Pelegrin, Bordeaux, on 3rd September 1983, on the occasion of the 5th European Congress of Radiology.

### Membership

The Bulgarian National Scientific Society for Biomedical Physics and Engineering was welcomed to membership of EFOMP. The President reported upon negotiations which, it is hoped, will lead to the affiliations of four other nations.

### President's Report

This was the final report to be presented by Mr. J. S. Clifton, as President, and he took the opportunity to review the progress that EFOMP had made during his three year term and to highlight matters for attention. There had been great progress in establishing relationships with organisations such as the W.H.O., I.A.E.A. and I.E.C. It seemed clear to Mr. Clifton that the way forward was for EFOMP to take the initiative in making proposals for collaborative projects which would foster the development of medical physics in Europe.

One of the original operating principles for EFOMP was that it should not organise scientific meetings. In view of both the developments in collaboration that he could foresee and the need to introduce more funds to the Federation Mr. Clifton recommended that this principle be changed. Council agreed that the organisation of specialist scientific meetings was now seen as an important way for development to proceed.

### Treasurer's Report

Dr. Bergmann presented consolidated accounts for 1982. There were two affiliated societies who had not paid capitation fees and Council decided upon a course of action to investigate the reasons and seek the necessary payments. There was discussion on the ways in which the balance might be enhanced and it was agreed that the affiliated societies be asked to seek approval for an increase in the capitation fee from £0.65 to £0.75 for 1984. The Treasurer was asked to make a more detailed budget projection; all members were asked to encourage advertising in E.M.P. News; it was agreed that the Treasurer would pursue his scheme for 'collaborative membership' for commercial organisations and it was hoped that there would be some income from scientific meetings to be planned.

## EFOMP Officers

The following were elected as Officers of EFOMP:

President	Mr. J. Chavaudra	(France)
Vice-President	Professor G. G. Poretti	(Switzerland)
Secretary General	Dr. H - K. Leetz	(F.R.G.)
Treasurer	Dr. H. Bergmann	(Austria)

Mr. J. S. Clifton (U.K.) is the Immediate Past President

The Committee Chairmen are:

Education	Professor J. S. Orr	(U.K.)
Scientific	Professor G. G. Poretti	(Switzerland)
Professional	Dr. P. E. Asard	(Sweden)
Publications	Dr. E. Claridge	(U.K.)

It was agreed that new chairmen would be elected, for both the Scientific and Professional Committees, from within the committee memberships, during the course of the year. A complete list of committee members will be published in the next issue of E.M.P. News.

## Education and Training Matters

The report on education and training, which had been discussed at the Hamburg Symposium, had been updated in the light of comments from member organisations and was formally accepted by Council. It will now be issued as an EFOMP policy document. As a follow up, a questionnaire had now been issued with the object of identifying training centres, including those offering courses particularly suited to students from developing countries. It was also hoped to identify a common core training syllabus.

## Scientific Matters

### Health Technology Assessment

A further W.H.O. meeting to develop proposals for an information network on Health Technology Assessment had been held in August 1983. It was now intended that the American E.C.R.I. classification should be used as the basis. It was necessary to identify test centres in Europe and there seemed to be possible roles for EFOMP both in publicising information and, in conjunction with I.F.M.B.E., in the provision of detailed information on evaluation centres. Council encouraged the officers to pursue both of these aims and an agreement has now been reached with the W.H.O. to enable data from TNO, the European project centre, to be published regularly in E.M.P. News, starting with this issue.

### C-T Image data format on Floppy Discs

Professor Poretti explained that no progress had been made in getting agreement between manufacturers on standardisation or on the provision of software information for C-T Image data formats on floppy disc. It was agreed that the problem should be referred to the I.E.C.

## Meetings

The Theoretical Physics Institute at Trieste is funded by the I.A.E.A. and UNESCO and is truly international in nature. In recent years the Institute has been encouraged to review its range of interests and Medical Physics has attracted considerable attention. There have been two major conferences on medical physics, the second one involved EFOMP as a sponsor and also a considerable input from the Associazione Italiana di Fisica Biomedica. EFOMP Council was hopeful that a more firmly based and long term collaboration on the organisation of conferences might emerge and the officers were empowered to explore the possibilities.

Liaison with the International Society for Optical Engineering continues and Council agreed that EFOMP should collaborate with SPIE in organising a meeting on 'Medical Imaging' in the autumn of 1984. Our principal contact with SPIE is Professor Poretti.

The date of the I.O.M.P. meeting at Espoo, near Helsinki, Finland, has been changed to 11-16 August 1985. It was left to the Scientific Committee and the President to negotiate a suitable contribution from EFOMP.

Collaboration with the W.H.O. and others in arranging a meeting on Quality Assurance in Diagnostic Radiology was agreed.

---

### Clinical Radiation Physics—BINZ, Rugen, GDR

Dr. Tautz was present and able to invite members to take part in this meeting, which will be held in the Spa Hotel of this Baltic resort from 28th October to 1st November 1984. It was agreed that advantage would be taken of this invitation and an Officers Meeting held at Binz.

It is necessary for early application to be made so that visas can be arranged for those wishing to attend this meeting. Formal applications must be submitted by the end of March 1983 and details may be obtained from:

Dr. M. Tautz,  
Stadt. Klinikum Berlin-Buch,  
Institut für Klinische Strahlenphysik,  
1115 Berlin-Buch, Wiltbergstrasse 50, DDR.

The scientific programme will be organised by the Clinical Radiation Physics section of the Society for Medical Radiology of the GDR and the Society for Physical and Mathematical Biology. The main themes will be 'The contribution of physics and engineering to the quality and the risk of radiological procedures' and 'Dosimetry and irradiation planning of irregular fields'. There will be provision for proffered papers.

---

### Professional Matters

There had been a number of comments upon the 'Professional Status' document, from member societies, subsequent to the Hamburg meeting and the Professional Committee had agreed upon modifications to incorporate most of them. One problem had not been resolved and Dr. Asard asked Council to consider it. A suitable form of words was agreed and the statement will now be issued as an EFOMP policy document.

---

## Bordeaux, 1983

The fifth European Congress of Radiology and the second meeting of ESTRO took place early in September, 1983, in Bordeaux, France. EFOMP was particularly involved in the organisation of three of the sessions: Quality Control in Radiotherapy, a session on Biomedical Problems which considered the organisation of imaging departments and a session concerned with quality assurance in diagnostic radiology.

There have been many verbal exchanges of 'Bordeaux stories' since the Congress. They relate principally to the logistic difficulties caused when the main accommodation is far away from the congress area; when parallel sessions relate so closely that planning the day is first difficult and then frustrated by timing upsets when speakers don't turn up and when formal arrangements for lunch are simply not adequate for the task.

Perhaps the group most to be praised at Bordeaux were those who sat in the hot, improvised forth lecture theatre on the Tuesday afternoon to consider problems of quality assurance in radiotherapy whilst others enjoyed wine, snacks and the outdoor sun with the legitimate justification of attendance at the Congress reception. The planning of parallel sessions rarely achieves extremes such as this! The reward provided was a lively review of work in hand in European centres and in the USA. The discussion made it quite clear that the subject provides a fruitful area of endeavour and was so active that the formal review of the related posters was curtailed. The co-ordinating involvements of the W.H.O., I.A.E.A., I.C.R.U. and ESTRO were considered and it is quite clear that the topic will soon be appearing again on EFOMP agendas. The matter is complex as it involves problems in both physics and medical management which some saw as separable, others not.

There have been rapid developments in medical imaging techniques in recent years, sometimes leading to the establishment of specialist imaging departments. One session was devoted to consideration of the way in which such departments may be organised. Several papers in the session devoted attention to the contributions that medical physicists can play. A further session was provided for consideration of quality assurance in diagnostic radiology and again it successfully combined information on international efforts, such as those of the W.H.O. in quality assurance programmes and workshops, with those of individual groups.

The Congress staged a major exhibition of equipment. This seemed to be much appreciated by the delegates and perhaps because of the other problems many abandoned attempts to hear lectures in favour of time spent learning about developments directly from the manufacturers.

It was valuable for EFOMP to have this collaboration with ESTRO and the E.A.R. There was much more of interest in the programme than I have not mentioned here, particularly developments in digital radiology and N.M.R., as well as the instructive clinical papers. However, the problems associated with organising such large meetings need careful assessment. This Congress was said to have attracted about 4000 participants and it made a major impact on the accommodation and air transport resources of Bordeaux. A high percentage of late registrations made planning more difficult. The radiotherapy sessions were held at the beginning of the week and the relatively smaller numbers provided a warmer atmosphere than seemed to be achieved in the later diagnostic radiology sessions.

*E. Claridge*

---

## HPA Anniversary

At its Annual Conference, held in Newcastle-upon-Tyne, in September 1983, the U.K. Hospital Physicists' Association celebrated its 40th Anniversary. A large number of the founder members were able to attend and the programme was arranged so that they were able to play a lively part. In the scientific sessions each topic was introduced by a '40 years of . . .' review, presented by a founder member. These reviews were followed by mainly proffered papers from younger members, on more recent developments. The whole provided an excellent perspective view of the subjects. The Douglas Lea Lecture was given by Professor Jack Fowler, who spoke on '40 years of radiation biology' and left no doubt that there is still much useful work to be done. The text of his lecture will be printed in *Physics in Medicine and Biology*.

Some stalwart exhibitors arranged to transport equipment from the Bordeaux congress to Newcastle and were joined by others to make an excellent display which formed an integral part of the conference. The exhibition (and coffee) hall was adjacent to the dining room and the lecture theatre and remained busy throughout. In recognition of the special occasion there were social events each evening. These included a visit to a local Industrial Archeology Museum, an Elizabethan Banquet, a formal dinner in the Newcastle Civic Centre and a visit to the Roman Wall.

During the conference a new HPA publication was launched, entitled 'History of the Hospital Physicists' Association, 1943-1983'. The book has 169 pages and provoked many discussions and reminiscences. It begins with an introduction from Prof. W. V. Mayneord. Dr. J. W. Meredith describes the first decade and the late Mr. R. G. Wood the second. Two contributors, Prof. J. M. A. Lenihan and Prof. H. Miller cover the third decade and Prof. J. S. Orr and Mr. J. W. Haggith the fourth. A retrospective view is presented by Prof. F. W. Spiers before Prof. J. E. Roberts introduces the second half of the book which includes photographs, reproduced signatures and biographies of founder members, chairmen and presidents. Finally there is a compendium of interesting appendices. Copies may be obtained from the HPA Publications Department, 47 Belgrave Square, London SW1X 8QX, U.K. Telephone 01-235-6111. The hardback version costs £15 and the paperback £12, plus postage. Payment may be made by credit card (Barclay, Visa, Access, Eurocard) or UNESCO coupon, sterling cheque or bank draft. An order form is available from the above address.

---

## Cardiac Defibrillators

The International Electrotechnical Commission has published a new document, IEC 601-2-4, on cardiac defibrillators. The report is entitled 'Medical electrical equipment. Part 2: Particular requirements for the safety of cardiac defibrillators and cardiac defibrillator-monitors' and was prepared by committee SC 62D. It has 77 pages and costs S.Fr. 85.00.

# International List of Comparative Reports and Market Surveys

Compiled by the Advisory Centre for Medical Technology, Institute of Medical Physics TNO (MFI-TNO), Da Costakade 45, 3251 VS Utrecht, The Netherlands.

## Preface

During the World Health Organisation Regional Meeting in Fez, Morocco, in October 1980, the Member States of the European Region of the WHO identified an urgent need for the establishment of national policies and strategies on medical technology. They recommended the coordination of national and international effort in that field. The development of technology assessment programmes, which would provide a sound basis for the implementation of such policies and strategies, could only be effective when the relevant information reached all concerned, ensuring necessary feedback and continuing dialogue.

Several subsequent activities have drawn attention to the need for the dissemination of assessment information on an international basis. The following reports, available from the Regional Office for Europe of the World Health Organisation, 8 Scherfigsvej, 2100 Copenhagen 0, Denmark, summarise these activities:

The problems of medical technology: R4/48/2(30), 1980.

National medical technologies assessment programmes, report on a consultation: Copenhagen, H4/48/12, 1981.

Health technology assessment network, report on a consultation: Copenhagen, ICP/ATH 010, 1981.

Organisation of a health technology assessment network in Europe, report on a workshop, Budapest, ICP/ATH 010(3), 1982.

Organisation of a health technology assessment network in the European Region, report on a workshop, The Hague, ICP/ATH 010(4) (S), 1983.

Basic radiological systems, report on a consultation, Glostrup near Copenhagen, ICP/ATH 010(8)/(S), 1983.

National guidelines for medical technology assessment and appropriate utilisation, report on a consultation, Brussels, ICP/ATH 010(6), 1983.

An agreement has now been reached between EFOMP and the WHO Regional Office for Europe to publish, on a regular basis, in European Medical Physics News, the international list of comparative reports and market surveys prepared by the TNO Advisory Centre for Medical Technology.

## Introduction

The European Community ad hoc Working Group on the Comparative Evaluation of Medical Equipment has assigned the Advisory Centre for Medical Technology (AMT), a part of the Institute of Medical Physics TNO, as the centre to which member states should send their reports and market surveys on medical equipment and products. The AMT committed itself to compose a list of all published reports and surveys and to add new publications to it. The AMT will send the list to all Working Group members regularly and to all other interested persons or institutions by request. Information on ordering the individual reports and market surveys is given under the heading 'Authorities and Ordering Addresses'.

## Explanations

AMT-Index: The index is composed of three figures and a dash followed by a single figure. The three figures form a unique number for each report or survey. Original publications and translations of them are distinguished by the dash as follows: -1 (original language) -2 (translation).

Subject: Different publications dealing with the same subject need the same keyword. Subject names in this column are derived from the Health Devices Sourcebook (1982-83, vol 2), Emergency Care and Research Institute, USA.

Authority: This column contains the abbreviation of the authority responsible for the publication. Full names and addresses of the authorities are given in the section 'Authorities and Ordering Addresses' below.

## Authorities and Ordering Addresses

Federal Republic of Germany  
TKB  
Technisches Krankenhausservice-Zentrum Berlin  
Projektleitung  
Rudolf-Virchow-Krankenhaus  
Augustenburger Platz 1  
1000 Berlin 65

France  
CNEH  
Centre National de l'Equipment Hospitalier  
Les Quadrant  
78182 Saint-Quentin-en-Yvelines

Italy  
ISTISAN  
Istituto Superiore Di Sanita  
Viale Regina Elena 299  
00161 Roma

The Netherlands  
NZI  
Nationaal Ziekenhuis Instituut  
Oudlaan 4  
3515 GA Utrecht

MFI-TNO  
Medisch-Fysisch Instituut TNO  
Da Costakade 45  
3521 VS Utrecht

All Dutch publications have to be ordered from:  
Adviescentrum Medische Technologie  
Da Costakade 45  
3521 VS Utrecht

The United Kingdom  
DHSS  
Department of Health and Social Security  
Scientific and Technical Branch  
14 Russell Square  
London WC1R 5EP

SHHD  
Scottish Home and Health Department  
Scientific and Technical Branch  
Trinity Park House  
South Trinity Road  
Edinburgh EH5 3SH

All publications from the United Kingdom have to be ordered from:  
DHSS (Leaflets)  
PO Box 21  
Stanmore  
Middlesex HA7 1AY

## International List of Reports on Comparative Investigations

AMT Index	Subject	Report Code/Nr.	Title of Report	Number of Types	Date	Country	Authority	Language
018-1	Beds, electric	76.86	MFI-test elektrisch verstelbare bedden	13	00-76	The Netherlands	NZI	Dutch
032-1	Blood gas monitors, transcutaneous oxygen	HEI 97	Evaluation of transcutaneous oxygen monitors	5	12-81	United kingdom	DHSS	English
015-1	Defibrillators	74.55	MFI-test defibrillatoren	32	00-74	The Netherlands	NZI	Dutch
015-2	Defibrillators	75.79	MFI-test defibrillators	32	00-75	The Netherlands	NZI	English
002-1	Defibrillators	HEI 87	Evaluation of defibrillators, first report	7	07-82	United Kingdom	DHSS	English
030-1	Defibrillators	HEI 101	Evaluation of defibrillators (see also HEI 87)	5	04-82	United Kingdom	DHSS	English

AMT Index	Subject	Report Code/Nr.	Title of Report	Number of Types	Date	Country	Authority	Language
011-1	Defibrillators, battery powered	11	Evaluation de defibrillateurs cardiaques	9	02-80	France	CNEH	French
028-1	Defibrillators battery powered	82.292	MFI-test draagbare defibrillatoren	23	00-82	The Netherlands	NZI	Dutch
004-1	ECG monitors	HEI 78	Evaluation of ECG monitors, first report	4	05-79	United Kingdom	DHSS	English
035-1	ECG monitors	HEI 93	Evaluation of ECG monitors (see also HEI 78)	6	06-81	United Kingdom	DHSS	English
038-1	ECG Monitors	HEI 108	Evaluation of ECG monitors (see also HEI 78 and HEI 93)	4	03-83	United Kingdom	DHSS	English
029-1	Electrocardiographs	—	Evaluation des electrocardiographes 1 & 3pistes	13	12-78	France	CNEH	French
010-1	Electrocardiographs, multi channel	12	Evaluation des electrocardiographes 3 pistes	9	09-80	France	CNEH	French
016-1	Electrocardiographs, multi channel	75.80	MFI-test drie-kanaals (fono) electrocardiografen	10	00-75	The Netherlands	NZI	Dutch
016-2	Electrocardiographs, multi channel	77.119	MFI-test 3 channel (phono) electrocardiographs	10	00-77	The Netherlands	NZI	English
009-1	Electrocardiographs, single channel	13	Evaluation des electrocardiographes 1 pistes	16	10-80	France	CNEH	French
001-1	Electrocardiographs, single channel	1981/58	Rapporto sulle prove comparative degli elettrocardiografi monocanale	6	00-81	Italy	ISTISAN	Italian
013-1	Electrocardiographs, single channel	73.33	MFI-test een-kanaals electrocardiografen	14	00-73	The Netherlands	NZI	Dutch
013-2	Electrocardiographs, single channel	75.77	MFI-test one-channel electrocardiographs	14	00-75	The Netherlands	NZI	English
003-1	Electrocardiographs, single channel	HEI 91	Evaluation of ECG recorders, first report	4	03-81	United Kingdom	DHSS	English
034-1	Electrocardiographs, single channel	HEI 100	Evaluation of ECG recorders (see also HEI 91)	4	04-82	United Kingdom	DHSS	English
037-1	Electrocardiographs, single channel	HEI 107	Evaluation of ECG recorders (see also HEI 91 and HEI 100)	4	10-82	United Kingdom	DHSS	English
039-1	Electrocardiographs, single channel	HEI 112	Evaluation of ECG recorders (see also HEI 91, HEI 100 and HEI 107)	4	07-83	United Kingdom	DHSS	English
027-1	Electrodes, electrocardiographic	82.285	MFI-test ECG-electroden	24	00-82	The Netherlands	NZI	Dutch
021-1	Electroencephalographs	77.120	MFI-test electro-encefalografen	11	00-77	The Netherlands	NZI	Dutch
021-2	Electroencephalographs	—	MFI-test electro-encefalographs	11	00-77	The Netherlands	NZI	English
006-1	Electrosurgical units, general purpose	HEI 84	Evaluation of surgical diathermy units, first report	5	03-80	United Kingdom	DHSS	English
022-1	Fetal monitors	78.127	MFI-test foetal bewakingsapparaat	7	00-78	The Netherlands	NZI	Dutch
033-1	Humidifiers, nonheated	HEI 103	Evaluation of humidifiers for medical use first report-single use humidifiers	9	06-82	United Kingdom	DHSS	English
012-1	Incubators, infant	10	Incubateurs pour nourissons	24	02-08	France	CNEH	French
026-1	Incubators, infant	81.266	MFI-test intensive care convection couveuses	7	00-81	The Netherlands	NZI	Dutch
026-2	Incubators, infant	82.320	MFI-test intensive care convection incubators	7	00-82	The Netherlands	NZI	English
020-1	Pacemakers, heart, external	77.108	MFI-test uitwendige pacemakers	18	00-77	The Netherlands	NZI	Dutch
020-2	Pacemakers, heart, external	78.128	MFI-test external pacemakers	18	00-78	The Netherlands	NZI	English
025-1	Physiologic monitoring systems	80.195	MFI-test hartmonitoren	16	00-80	The Netherlands	NZI	Dutch
025-2	Physiologic monitoring systems	81.240	MFI-test heart monitors	16	00-81	The Netherlands	NZI	English
014-1	Physiologic monitoring systems, acute care	73.42	MFI-test hartbewakingssystemen	20	00-73	The Netherlands	NZI	Dutch
014-2	Physiologic monitoring systems, acute care	75.78	MFI-test cardiac monitoring systems	20	00-75	The Netherlands	NZI	English
019-1	Pressure measuring units, arterial blood, indirect	77.104	MFI-test onbloedige bloeddrukmeters	10	00-77	The Netherlands	NZI	Dutch
019-2	Pressure measuring units, arterial blood, indirect	78.152	MFI-test sphygmomanometers	10	00-78	The Netherlands	NZI	English
036-1	Pumps, infusion, syringe	HEI 106	Evaluation of infusion pumps second report—syringe pumps	9	10-82	United Kingdom	DHSS	English
023-1	Recorders, long term, ECG, portable	79.180	MFI-test 'holter' systemen	6	00-79	The Netherlands	NZI	Dutch
023-2	Recorders, long term, ECG, portable	79.181	MFI-test 'holter' systems	6	00-79	The Netherlands	NZI	English
040-1	Resuscitators, pulmonary, manual	HEI 111	Evaluation of resuscitators, first report	11	07-83	United Kingdom	DHSS	English
008-1	Scanners, ultrasonic, general purpose	18	Evaluation comparative d' echographes—lere partie: 6 appareils a barrette temps reel	6	10-81	France	CNEH	French
005-1	Scanners, Ultrasonic, General Purpose	HEI 81	Evaluation of real-time ultrasonic scanners, first report	8	08-79	United Kingdom	SHHD	English
017-1	Thermometers, electronic	75.81	MFI-test medische elektrische thermometers	10	00-75	The Netherlands	NZI	Dutch
031-1	Transducer, pressure	HEI 105	Evaluation of blood pressure transducers	8	07-82	United Kingdom	DHSS	English
024-1	Warmers, blood	80.187	MFI-test doorstroom bloedverwarmers	6	00-80	The Netherlands	NZI	Dutch
024-2	Warmers, blood	81.252	MFI-test blood warmers for using during transfusion	6	00-81	The Netherlands	NZI	English

## International List of Market Surveys

AMT Index	Subject	Survey Code/Nr.	Title of the Market Survey	Number of Types	Date	Country	Authority	Language
005-1	Cameras, gamma	17	Caracteristique comparees de 18 gamma-cameras grand champ	18	07-81	France	CNEH	French
003-1	Defibrillators	2	Medizintechnik im Krankenhaus, Defibrillatoren	54	08-81	Fed. Rep. of Germany	TKB	German
009-1	Defibrillators, portable	DAAA	AMT marktverzichts draagbare defibrillatoren	24	10-81	The Netherlands	MFI-TNO	Dutch
008-1	Defibrillators, line powered	DAAB	AMT marktverzichts niet draagbare defibrillatoren	10	08-82	The Netherlands	MFI-TNO	Dutch
021-1	Diathermy units, ultra sonic	UAAA	AMT marktverzichts u.g. therapie-apparaten	12	03-82	The Netherlands	MFI-TNO	Dutch
001-1	ECG monitors	HAAB	AMT marktverzichts hartmonitoren	90	07-83	The Netherlands	MFI-TNO	Dutch
020-1	Electrical safety analyzers	VAAC	AMT marktverzichts veiligheids-testers analyzers	6	11-82	The Netherlands	MFI-TNO	Dutch
025-1	Electrocardiographs, multi channel	EAAB	AMT marktverzichts electrocardiografen, driekanaals	28	12-82	The Netherlands	MFI-TNO	Dutch
013-1	Electrocardiographs,	EAAF	AMT marktverzichts eenkarvaals electrocardiografen	23	10-81	The Netherlands	MFI-TNO	Dutch
012-1	Electrodes, electro-cardiografic	EAAG	AMT marktverzichts ECG elektroden, wegwerp, met pasta	71	05-83	The Netherlands	MFI-TNO	Dutch
026-1	Electroencephalographs	EAAA	AMT marktverzichts electro-encefalografen	24	12-82	The Netherlands	MFI-TNO	Dutch
014-1	Electrosurgical units, general purpose	EAAE	AMT marktverzichts elektrochirurgie apparatuur	21	08-82	The Netherlands	MFI-TNO	Dutch
016-1	Fetal heart detectors, ultrasonic	FAAB	AMT marktverzichts foetale hartslag detectoren (doptone)	15	04-81	The Netherlands	MFI-TNO	Dutch
015-1	Fetal monitors	FAAA	AMT marktverzichts foetale bewakings-apparatuur	14	10-82	The Netherlands	MFI-TNO	Dutch
007-1	Incubators, infant	CAAA	AMT marktverzichts couveuses	24	11-81	The Netherlands	MFI-TNO	Dutch
018-1	Pacemakers, heart, external	PAAA	AMT marktverzichts externe pacemakers	26	09-82	The Netherlands	MFI-TNO	Dutch
004-1	Pacemakers, heart, implantable	14	Analyse des 78 stimulateurs cardiaque implantable	78	11-80	France	CNEH	French
019-1	Physiologic monitoring systems	HAAB	AMT marktverzichts hartmonitoren	66	10-81	The Netherlands	MFI-TNO	Dutch
024-1	Physiologic monitoring systems, acute care	5	Medizin im Krankenhaus, Patienten Ueberwachungssysteme	69	08-82	Fed. Rep. of Germany	TKB	German
022-1	Pumps, infusion	IAAA	AMT marktverzichts infuuspompen, druppel and volumetrisch	33	03-83	The Netherlands	MFI-TNO	Dutch
017-1	Pumps, infusion, syringe	IAAB	AMT marktverzichts injectiespuitpompen	38	09-82	The Netherlands	MFI-TNO	Dutch
023-1	Pumps, infusion; Pumps, infusion, syringe; Controllers	3	Medizin im Krankenhaus, infusions-apparate	35	12-81	Fed. Rep. of Germany	TKB	German
010-1	Recorders, long term, ECG, portable	EAAC	AMT marktverzichts draagbare ECG-bandrecorders (opname)	18	11-81	The Netherlands	MFI-TNO	Dutch
011-1	Scanners, long term, ECG, recording	EAAD	AMT marktverzichts draagbare ECG-bandrecorders (weergave)	19	11-81	The Netherlands	MFI-TNO	Dutch
027-1	Stimulators, transcutaneous electrical nerve	ZAAA	AMT marktverzichts zenuwstimulatoren, transcutaan, electrisch	24	06-83	The Netherlands	MFI-TNO	Dutch
006-1	Warmers, blood	BAAD	AMT marktverzichts doorstroom bloedverwarmers	5	08-82	The Netherlands	MFI-TNO	Dutch

## Forthcoming meetings:

Eighth International Symposium on Biotelemetry.

May 6-12, 1984; Dubrovnik, Yugoslavia.

Dr. H. P. Kimmich, 8th I.S.O.B., Department of Physiology, University of Nijmegen, Postbus 9101, NL-6500 HB Nijmegen, The Netherlands.

The Physics and Engineering of Medical Imaging.

September 23-October 5, 1984; Maratea, Italy.

NATO Advanced Study Institutes Programme, Dr. Riccardo Guzzardi, C.N.R. Clinical Physiology Institute, Via P. Savi, 8, 56100 Pisa, Italy.

Sixth Hungarian Conference on Bio-medical Engineering with international participation and the Second IMEKO Conference on Measurement in Clinical Medicine.

September 18-21, 1984; Balatonfured, Hungary.

The Scientific Society of Measurement and Automation, 1055 Budapest, Kossuth Lajos ter 6-8, Hungary.

Please send, as soon as possible, material for the June 1984 issue of EMP News to:

Dr. E. Claridge, Editor EMP News, Department of Medical Physics and Biomedical Engineering, Queen Elizabeth Hospital, Birmingham, B15 2TH, England.

General correspondence concerning the Federation should be addressed to the Secretary-General, Dr. H-K Leetz, Institut fur Biophysik, Universitäts Kliniken, 6650 Homburg-Saar, Federal Republic of Germany.

Advertisements: Enquiries should be sent to the Sales Department (Advertisements), The Institute of Physics, Publishing Division, Techno House, Redcliffe Way, Bristol, BS1 6NX, England. Telephone 0272 297481. Telex 449149. As well as purchasing advertising space manufacturers and publishers can arrange for leaflets, brochures or reply cards to be mailed with EMP News.

Printed by the Bocardo Press, Cowley, Oxford, England.