

FACULTY OF MEDICINE
UNIVERSITY HOSPITALS OF COIMBRA

**UNIVERSITY CLINIC
CENTER OF
CARDIOTHORACIC SURGERY**



ANNUAL REPORT

2008

During 2008, another record was established, with 1,706 surgeries performed. Although this increase in the activity is essentially related to the ever-growing number of thoracic non-cardiac surgeries, we have to emphasise the relative constancy of the number of cardiac surgeries, having in mind the fact that other centres have increased their output which means that, at the present time, the Portuguese cardiac surgery, as a whole, is close to give a complete response to the needs of our citizens. However, we must stress that, with these figures, the Centre of Cardio-Thoracic Surgery of the University Hospitals of Coimbra, remains the most active in the Country in both and in each one of these two groups of pathology, being demanded by patients of all regions. We also emphasise the low rates of mortality and morbidity, despite the clear increase of the number of complex cases and, especially, of the significant increase in the mean age of the patients. Cardiac surgery in octogenarians is today a constant daily occurrence, with implications also in the bed occupancy rates and in costs.

But there were two areas where there has been a decrease in the activity. The first one was that of congenital diseases, which are clearly in a downward trend, probably as a consequence of antenatal diagnosis and consequent termination of pregnancy in the most complex cases. The second one was cardiac transplantation, with only 23 procedures having been performed, because of lack of donors. If the situation had been more or less normal during the first half of the year, the second semester was clearly marked by a decrease in the number of the available organs, despite the liberal approach adopted from the beginning of the program. The Centre had never had as many patients in the waiting list for transplantation. This fact is in apparent contrast with the announced increase in the number of donors in the Country during this year, which places it in a leading position in Europe, but may be explained by the fact that multi-organ donors are now significantly older and the majority do not qualify as heart donors. Of the 96 donors registered by the GCCTO of our Hospital, only 17 were heart donors.

Still in the field of transplantation, it became news the eventual entrance of the Department in the field of pulmonary transplantation. During the last trimester of the year, we have worked intensively in the preparation of a working group, including the admission of some specific additional staff for this type of activity, and in the protocols. It is probable that the year 2009 may bring news in this subject.

Besides this surgical activity, the Centre has maintained its usual teaching activity in the Faculty of Medicine, as well as in the School of Health Technologies and in the

School of Nursing of Coimbra. To better respond to this intense teaching activity, Drs David Prieto and Paulo Calvino were signed as Invited Assistants of the Faculty of Medicine.

As usually, one team of the Centre participated in a humanitarian surgical mission in the Heart Institute of Maputo, Mozambique, during which 22 operations were performed. This was the 8th annual mission and this activity is complemented by the contribution of the Centre to the teaching of specialized technical staff of the Institute. During the first part of the year, Dr Sozinho Estefane completed his training period in cardiothoracic surgery in the Department, having since returned to Maputo, and the technician Janeiro Mundiara continued his preparation as a perfusionist. Both have participated in this year's mission.

Finally, we refer a significant increase in the scientific activity, translated in 17 published papers and in another 8 already accepted for publication, the majority in peer-review international journals, as well as in the 42 conferences or communications presented at scientific meetings, with special relevance of those presented at notorious international meetings, many by invitation.

By contrast with the evident success of this clinical, pedagogic and scientific activity, the managerial organization of the Department appears threatened by the evolution of the National Health Service, in my opinion negative, and by the alteration of the statute of our Hospitals towards the end of the year. These evolutions have resulted in a decreased capacity of attraction of staff and, especially, in the exit of some of its most important members, which have used the transition period to retire. We foresee difficult moments in the near future, but the Department will continue fighting for the maximization of the autonomy that it is conferred to it by its statute of Centre of Responsibility, an management alternative which, in my opinion is the best, if not the only way to improve the efficiency and productivity of health services.

Coimbra, 31st December 2008

Manuel J Antunes, MD, PhD, DSc

Professor and Head of the Department

STAFF

SURGERY

<i>Director/Professor</i>	Manuel J Antunes	
<i>Chefes de Serviço</i>	J Ferrão de Oliveira	Luís Eugénio
	João Bernardo	
<i>Assistente Graduado</i>	Pedro Antunes	David Prieto
<i>Assistentes</i>	Paulo Calvino	
<i>Internos</i>	Gonçalo Coutinho	Rita Pancas
	Cláudia Basto	Vyacheslav Bihun
	Carlos S Pinto	
<i>Fellow Internacional</i>	Sozinho Estefane (até Maio)	

ANESTESY

<i>Assistente Graduado</i>	Manuel Carreira	Manuel Cuervo
----------------------------	-----------------	---------------

CARDIOLOGY

<i>Assistente</i>	Maria João Maldonado	Catarina Neves
-------------------	----------------------	----------------

PNEUMOLOGY

<i>Assistente</i>	Mª José Guimarães (desde Set.)	
-------------------	--------------------------------	--

PERFUSION

António Ribeiro	Gabriel Ferreira (até Março)
Pedro Pires	Patrícia Paiva
Bruno Claro	Ângelo Casaleiro
Bruno Silva (desde Outubro)	

NURSING

Noémia Tavares (Enfª Chefe)	Emília Sola (Enfª Chefe)
Cesaltina Custódio (BO) (até Nov.)	Leonilde Ferreira (BO)
Graça Caldeira (Pulmonar)	Anabela Perdigão (UIntermédia)

SECRETARIATE

Ana Gonçalves	Fernanda Zacarias
Inês Freire	Susana Rougier
Adriana Raimundo	

SURGICAL ACTIVITY

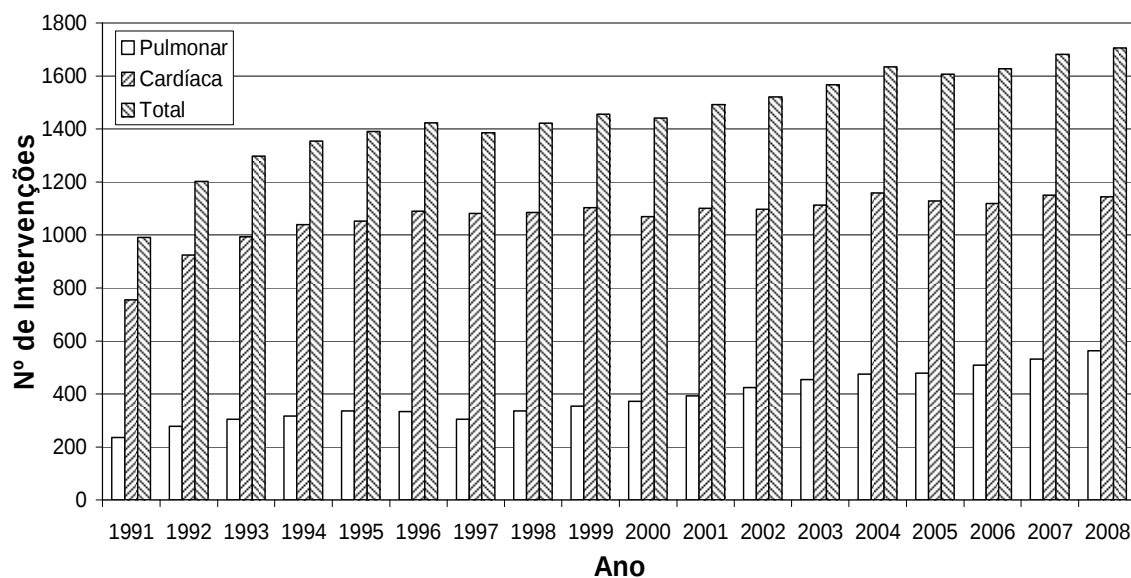
RESUME - I

	N	Mortality	
		n	%
THORACIC SURGERY	565	1	0.2
Major	416	1	0.2
Minor	149		
CARDÍAC SURGERY	1141	8	0.7
Com CEC	1061	8	0.7
Sem CEC	80		
TOTAL	1706	9	0.5

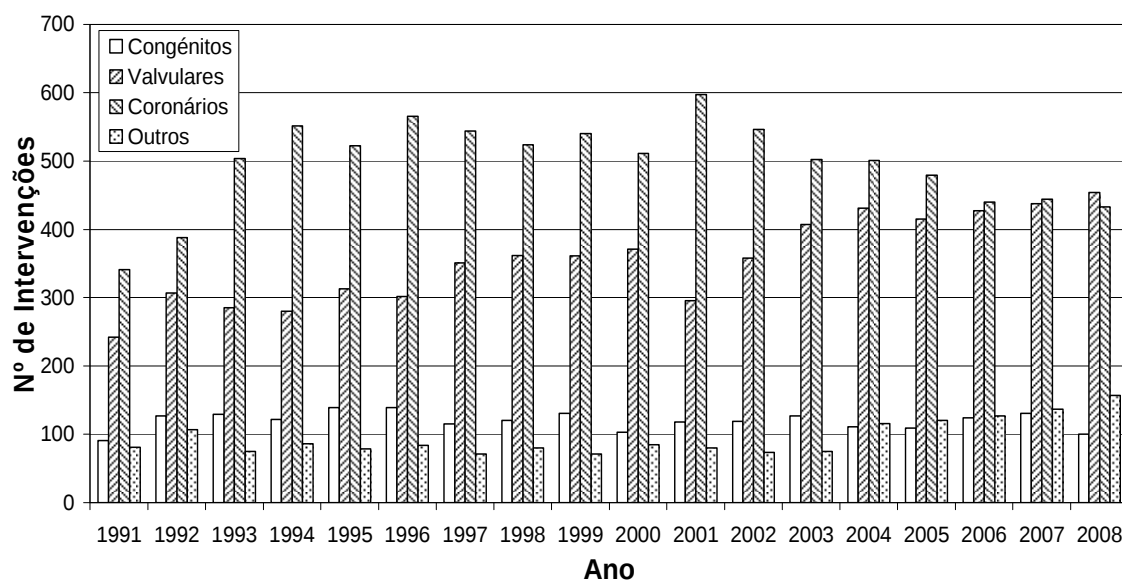
RESUME – II

	N	Mortality	
		n	%
CARDÍAC SURGERY			
Adquiridos	1041	6	0.6
Com CEC	988	6	0.6
Sem CEC	53		
Congénitos	100	2	2.0
Com CEC	73	2	2.7
Sem CEC	27		
TOTAL	1141	8	0.7

Actividade Global 1991-2008



Cirurgia Cardíaca 1991-2009



CIRURGIA CARDÍACA *

	N	Mortalidade	
		n	%
A. ADQUIRIDOS			
I- Com CEC			
Válvula mitral		162	1
Substituição	21		
+ plastia / substituição tricúspide	22		1
Plastia	99		
+ plastia tricúspide	20		
Válvula aórtica		234	-
Substituição por prótese	222		
+ plastia tricúspide	3		
Subst. por homoenxerto	5		
Plastia/operação de Morrow	2		
Leak / trombose da válvula Ao	2		
Válvula aórtica + mitral		58	-
Substituição dupla / tricúspide	25		
Substituição aórtica + plastia mitral	21		
+ plastia tricúspide	4		
Substituição mitral + plastia aórtica + tricúspide	2		
Plastia dupla mitro-aórtica + plastia tricúspide	3		
Válvula tricúspide - Substituição / Plastia		3	-
Aneurismas/Dissecções da aorta		66	-
Operação de Bentall	9		
Subst. aorta ascendente	21		
+ substituição / plastia válvula aórtica	27		
+ bypass coronário	7		
+ CIA	1		
+ bypass coronário + plastia mitral + CIA	1		
Doença coronária (Bypass)**		354	1
Uma mamária	308		1
Duas mamárias	46		
Doença coronária + associada		79	-
CIA	1		
Aneurismectomia VE	8		
+ prótese mitral	3		
Plastia mitral	7		
+ plastia tricúspide	1		
Subst. Aórtica	56		
+ plastia mitral	3		
Transplantação cardíaca		23	2
Outras		13	1
Mixoma	4		
Embolectomia pulmonar	1		
CIV pós-enfarte	1		1
Assistência ventricular	6		
Remoção de trombo da aurícula direita	1		
SUB-TOTAL		938	6
			0.5
* Inclui 22 doentes operados no I.C. - Maputo – Moçambique			
** Inclui 22 cirurgias s/ CEC			

		N	Mortalidade	
			n	%
II-Sem CEC		53	-	-
Pericardiectomia	5			
Revisão de hemostase	13			
Refixação do esterno	4			
Mediastinite	2			
Drenagem pericárdica	12			
Remoção de material protésico	2			
Implantes / Substituição CDI	12			
Colocação de catéter epicárdico	3			
TOTAL		1041	6	0.5

B. CONGÊNITOS

I - Com CEC		73	2	2.7
Comunicação interauricular (OS)	14			
+ plastia mitral	2			
+ plastia tricúspide	5			
+ estenose pulmonar	2			
Comunicação interventricular	8			
+ CIA	4			
+ estenose pulmonar	1			
Insuf. valvular pulmonar (homoenxerto)	3			
Cor triatriatum	2			
Plastia mitral	1		1	
Estenose aórtica – comissurotomia / plastia	3			
Operação de Ross	3			
Membrana sub-aórtica	2			
Tetralogia de Fallot	2			
Canal A-V parcial	6			
Canal A-V completo	3		1	
TGV – switch arterial	4			
Atrésia da tricúspide (operação de Fontan)	1			
Retorno venoso pulmonar anômalo total	1			
Ventrículo direito único com atrésia pulmonar	1			
Septostomia	1			
Truncus	2			
Estenose coronária	1			
Assistência ventricular esq ^a	1			
II- Sem CEC		27	-	-
Canal arterial em prematuros	6			
Coartação da aorta	10			
Shunt Blalock-Taussig	6			
Anel vascular	1			
Shunt interauricular	1			
Pace-maker epicárdico	1			
Operação de Glenn	1			
Mediastinite	1			
TOTAL		100	2	2.0

CIRURGIA TORÁCICA / PULMONAR*

	N	Mortalidade	
		n	%
A. GRANDE CIRURGIA	377	1	0.2
Pneumectomia	6		
Bilobectomy	5		
Lobectomy	43		
Segmentectomy / cunha / enucleação	59		
Fístula bronco-pleural	3		
Pneumoplastia / exérese de bolha gigante	1		
Exérese de quisto broncogénico / pericárdico	5		
Exérese de metástases pulmonares	42		
Excisão de quisto hidático	1		
Pneumotórax espontâneo (abrasão pleural)	26		
Descorticação pulmonar	24		
Toracostomia	2		
Hemotórax / limpeza cirúrgica / revisão hemostase	12		
Toracotomia exploradora / diagnóstica - biópsia	52		
Tumor da parede torácica	4		
Tumor parede torácica c/ reconstrução	6		
Correcção de pectus carinatum / excavatum	8		
Exérese de tumor mediastínico	12		
Timectomia alargada	16		
Eventração / hérnia diafragmática	8		
Janela pleuro-pericárdica	12		
Refixação do esterno / fístulas esternocutâneas	16		
Osteossíntese da parede costal	4		
Mediastinite	2		
Esofagectomia + Linfadenectomia mediastínica	3		
Acesso a tumor da coluna	4		
Secção total da traqueia (traumática)	1		
Tumor inflamatório do manúbrio	1		
B. CIRURGIA POR VIDEOTORACOSPIA (VATS)	39	-	-
Biópsia pulmonar/pleural	28		
Exérese de nódulo pleural	2		
Descorticação pulmonar	1		
Simpaticectomia dorsal	7		
Janela pleuro-pericárdica	1		
C. PEQUENA CIRURGIA / DIAGNÓSTICO	149	-	-
Mediastinoscopia	96		
Mediastinotomia anterior	21		
Toracoscopia diagnóstica / talcagem	8		
Remoção de placa de osteossíntese	3		
Traqueostomia	2		
Biópsia de adenopatia	3		
Limpeza cirúrgica de feridas operatórias	2		
Implantes torácicos / Cateteres L.D.	14		
TOTAL	565	1	0.2

Publicações

1. Calvino P, Antunes MJ
Current surgical management of mitral regurgitation
Expert Review of Cardiovascular Therapy 2008;6:481-90
2. Colli A, Verhoye JP, Heijmen R, Strauch JT, Hyde JAJ, Pagano D, Antunes M, Koertke H, Ohri S K, Bail DHL, Leprince P, Van Straten BHM, Gherli T
Antithrombotic therapy after bioprosthetic aortic valve replacement: ACTION registry survey results
Eur J Cardiothorac Surg, April 2008; 33: 531-6.
3. Antunes M, Biernat M, Sola E, Oliveira L, Prieto D, Franco F, Providência L
Cardiac allograft systolic function. Is the aetiology (ischaemic or idiopathic) a determinant of ventricular function in the heart transplant patient?
Interactive CardioVascular and Thoracic Surgery. Aug 2008; 7:586-90
4. Messias P, Bernardo JE, Antunes MJ
Primary left atrial haemangioendothelioma
Interactive CardioVascular and Thoracic Surgery. Oct 2008; 7: 945-6
5. Antunes PE, Oliveira JF, Antunes MJ
Coronary surgery in patients with diabetes mellitus: a risk-adjusted study on early outcome
Eur J Cardio-thorac Surg 2008;34:370-5
6. Vahanian A, Alfieri O, Al-Attar N, Antunes M, Bax J, Cormier B, Cribier A, De Jaegere P, Fournial G, Kappetein AP, Kovac J, Ludgate S, Maisano F, Moat N, Mohr F, Nataf P, Pierard L, Pomar J, Schofer J, Tornos P, Tuzcu M, van Hout B, Von Segesser L, Walther T
Transcatheter valve implantation for patients with aortic stenosis: a position statement from the european association of cardio-thoracic surgery (EACTS) and the European Society of Cardiology (ESC), in collaboration with the European Association of Percutaneous Cardiovascular Interventions (EAPCI).
EuroIntervention. 2008;4:193-9.
7. Coutinho GF, Pancas R, Bernardo JE, Antunes MJ
Reply to Wuyts.
Eur J Cardio-thorac Surg. 2008;34:1272.
8. Antunes MJ
Guidelines in real life. Why are they not always enforced?
Eur J Cardiothorac Surg. 2008;34:935-6.
9. Vahanian A, Alfieri OR, Al-Attar N, Antunes MJ, Bax J, Cormier B, Cribier A, De Jaegere P, Fournial G, Kappetein AP, Kovac J, Ludgate S, Maisano F, Moat N, Mohr FW, Nataf P, Pierard L, Pomar JL, Schofer J, Tornos P, Tuzcu M, van Hout B, von Segesser L, Walther T
Transcatheter valve implantation for patients with aortic stenosis: a position statement from the European Association of Cardio-Thoracic Surgery (EACTS) and the European Society of Cardiology (ESC), in collaboration with the European Association of Percutaneous Cardiovascular Interventions (EAPCI).
Eur J Cardiothorac Surg. 2008;34:1-8.
10. Vahanian A, Alfieri O, Al-Attar N, Antunes M, Bax J, Cormier B, Cribier A, De Jaegere P, Fournial G, Kappetein AP, Kovac J, Ludgate S, Maisano F, Moat N, Mohr F, Nataf P, Pierard L, Pomar J, Schofer J, Tornos P, Tuzcu M, van Hout B, Von Segesser L, Walther T
Transcatheter valve implantation for patients with aortic stenosis: a position statement from the European Association of Cardio-Thoracic Surgery (EACTS) and the European Society of Cardiology (ESC), in collaboration with the European Association of Percutaneous Cardiovascular Interventions (EAPCI).
Eur Heart J. 2008;29:1463-70.
11. Antunes MJ
Percutaneous aortic valve implantation. The demise of classical aortic valve replacement?
Eur Heart J. 2008;29:1339-41.
12. Coutinho GF, Pancas R, Magalhães E, Bernardo JE, Eugénio L, Antunes MJ.
Diagnostic value of surgical lung biopsy: comparison with clinical and radiological diagnosis.
Eur J Cardio-thorac Surg. 2008;33:781-5.
13. Henriques J, Carvalho P, Gil P, Marques A, Rocha T, Ribeiro B, Antunes M, Schmidt R, Habetha J.
Ventricular arrhythmias assessment.
Conf Proc IEEE Eng Med Biol Soc. 2007:3852-5.
14. Kumar D, Carvalho P, Antunes M, Henriques J, Sá e Melo A, Schmidt R, Habetha J.
Third heart sound detection using wavelet transform-simplicity filter.
Conf Proc IEEE Eng Med Biol Soc. 2007;1277-81.

15. Brito M, Henriques J, Carvalho P, Ribeiro B, Antunes M.
ECG Compression through segment matching and progressive error encoding.
Conf Proc IEEE Eng Med Biol Soc. 2007;135-8.
16. Sá MI, Abreu A, Cabral S, Reis AH, Torres S, de Oliveira F, Antunes M, Gomes JL
Myxoma in the right ventricular outflow tract.
Rev Port Cardiol. 2007;26:377-81.
17. Costa S, Sa e Melo A, Rodrigues D, da Silva AM, Providência LA, Antunes MJ
Ectopic origin of the right coronary artery--case report.
Rev Port Cardiol. 2007;26:569-73.
18. Oliveira JF, Antunes MJ
Surgery for infective endocarditis
Textbook of Valvular Heart Disease (in press)
19. Rama N, Monteiro A, Bernardo JE, Eugénio L, Antunes MJ
Lung metastases from colorectal cancer: surgical resection and prognostic factors
Eur J Cardio-Thorac Surg [10.1016/j.ejcts.2008.10.047](#)
20. Antunes PE, Oliveira JF, Antunes MJ
Risk-prediction for postoperative major morbidity in coronary surgery
Eur J Cardio-Thorac Surg (in press)
21. Gama P, Pancas R, Antunes MJ
Ascending Thoracic Aorta Aneurysm Surgery and Aortic Valve Repair during Pregnancy
J Card Surg (in press)
22. Prieto D, Antunes P, Antunes MJ
Donor mitral valve repair in cardiac transplantation
Transplant Proc (in press)
23. Catarina Neves, David Prieto, Emília Sola, Manuel J Antunes
Heart transplantation from donors of different ABO blood type
Transplant Proc (in press)
24. Coutinho GF, Pancas R, Antunes PE, Antunes MJ
Long term follow-up of elderly patients subjected to aortic valve replacement with
mechanical prostheses
Eur J Cardio-Thorac Surg (submitted)
25. Calvino P, Bastos C, Bernardo JE, Eugénio L, Antunes MJ
Diaphragmatic eventration: long-term follow-up and results of open plicature
Eur J Cardio-Thorac Surg (submitted)

Apresentações em Congressos e outras Reuniões Científicas

1. Gestão de Remuneração em saúde: casos de sucesso?
Manuel J Antunes
Lunch & Learn. Hospital do Futuro. Porto. Fevereiro 2008
2. Abordagem ao CMV: terapêutica preemptiva vs. profilaxia universal
Manuel J Antunes
Oportunidades para maximizar o sucesso do doente. Torres Vedras. Fevereiro 2008
3. View of Specialist disagreeing with European Working Time Directive
Manuel J Antunes
20th European Congress of Obstetrics and Gynaecology. 18th Portuguese Congress of
Obstetrics and Gynaecology. Lisboa, Março 2008
4. Coronary surgery in patients with diabetes mellitus: A risk-adjusted study on early outcome
Pedro E Antunes, José Ferrão de Oliveira, Manuel J Antunes
XXIX Congresso Português de Cardiologia. Vilamoura. Abril 2008
5. Estudo de follow-up a longo prazo, de doentes com idade superior a 65 anos, submetidos a
substituição valvular aórtica por prótese mecânica
Gonçalo F Coutinho, Rita A Pancas, José Ferrão de Oliveira, Pedro E Antunes, Manuel J
Antunes
XXIX Congresso Português de Cardiologia. Vilamoura. Abril 2008
6. Morbilidade e mortalidade da cirurgia cardíaca em doentes dialisados
Paulo Calvino, Rita A Pancas, José Ferrão de Oliveira, David Prieto, Manuel J Antunes
XXIX Congresso Português de Cardiologia. Vilamoura. Abril 2008
7. Plastia mitral no coração dador em transplantação cardíaca
David Prieto, Pedro E Antunes, José Ferrão de Oliveira, Luís Eugénio, Manuel J Antunes
XXIX Congresso Português de Cardiologia. Vilamoura. Abril 2008

8. Terapêutica invasiva da doença coronária. Cirurgia
Manuel J Antunes
VIII Jornadas Científicas da Fundação Portuguesa de Cardiologia. 5ª Reunião Internacional de Reabilitação Cardíaca. Luso. Maio 2008
9. Estado da arte da cirurgia cardíaca do feto
Manuel J Antunes
Intervenção cardíaca fetal. Descoberta de um novo mundo. Coimbra. Maio 2008
10. Gestão na administração pública
Manuel J Antunes
Instituto da Habitação e da Reabilitação Urbana. Lisboa. Maio 2008
11. Atrial fibrillation analysis through a sparse decomposition technique, BMEI'08
S Paredes, T Rocha, P Carvalho, J Henriques
International Conference on Biomedical Engineering and Informatics. Sanya. Maio 2008
12. Assessment of Arrhythmias for Heart Failure Management, phealth 2008
J Henriques, P Carvalho, M Harris, Manuel J Antunes
R Couceiro M Brito, R Schmidt
International Workshop on Wearable Micro and Nanosystems for Personalised Health. Valencia. Maio 2008
13. Coração: Poesia, arte e ciência
Manuel J Antunes
Casa Municipal da Cultura. Coimbra. Junho 2008
14. MDMA has a partial agonistic effect on the human internal mammary artery through 5-HT₂ receptors
Sónia Silva, Félix Carvalho, Eduarda Fernandes, Manuel Antunes, Dulce Cotrim
International Symposium on Drugs of Abuse. S. Miguel. Julho 2008
15. Should we operate mitral regurgitation in the context of dilated cardiomyopathy?
Manuel J Antunes
The 1st Congress on Controversies in Cardiovascular Diseases: Diagnosis, treatment and Intervention (C-Care). Berlim. Julho 2008
16. New guidelines for antibiotic prophylaxis: a step too far?
Manuel J Antunes
European Society of Cardiology. Munique. Agosto 2008
17. When and where is surgery worthwhile and cost-effective?
Manuel J Antunes
European Society of Cardiology. Munique. Agosto 2008
18. Coronary surgery in patients with diabetes mellitus: a risk-adjusted study on early outcome
Pedro E Antunes, José Ferrão de Oliveira, Manuel J Antunes
European Society of Cardiology. Munique. Agosto 2008
19. Phase Space Reconstruction Approach for Ventricular Arrhythmias Characterization, EMBC-2008
T Rocha, Paredes S, J Henriques, Manuel J Antunes, P Carvalho
30th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Vancouver. Agosto 2008
20. On the Detection of Premature Ventricular Contractions, EMBC-2008
R Couceiro, P Carvalho, J Henriques, Manuel J Antunes
30th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Vancouver. Agosto 2008
21. Wavelet decomposition and reconstructed phase space features based heart murmur segmentation, EMBC-2008
D Kumar, P Carvalho, Manuel J Antunes, J Henriques, J Habetha
30th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Vancouver. Agosto 2008
22. Manifold Learning for Premature Ventricular Contraction Detection
B Ribeiro, J Henriques, A Marques, Manuel J Antunes
35th Conference Computers in Cardiology. Bologna. Setembro 2008
23. Lung metastases from colorectal cancer: Surgical resection and prognostic factors
Nuno Rama, A Monteiro, João Bernardo, Luís Eugénio, Manuel J Antunes
22nd Annual Meeting of the European Association for Cardio-Thoracic Surgery. Lisboa. Setembro 2008
24. Long-term follow-up of elderly patients subjected to AVR with mechanical prostheses
Rita Pancas, Gonçalo Coutinho, Pedro E Antunes, J Ferrão de Oliveira, Manuel J Antunes
22nd Annual Meeting of the European Association for Cardio-Thoracic Surgery. Lisboa. Setembro 2008

25. Risk prediction models for major postoperative morbidity in coronary surgery
Pedro E Antunes, José Ferrão de Oliveira, Manuel J Antunes
22nd Annual Meeting of the European Association for Cardio-Thoracic Surgery. Lisboa.
Setembro 2008
26. Diaphragmatic eventration: Long-term follow-up of open plicature
Cláudia Basto, Paulo Calvino, João Bernardo, Luís Eugénio, Manuel J Antunes
22nd Annual Meeting of the European Association for Cardio-Thoracic Surgery. Lisboa.
Setembro 2008
27. Transplantação cardíaca em Portugal É possível melhorar?
Manuel J Antunes
VII Congresso Luso-Brasileiro de Transplantação. Sta Eulália. Outubro 2008
28. Transplantação cardíaca com corações não-isogrupais
Catarina Neves, David Prieto, Manuel J Antunes
VII Congresso Luso-Brasileiro de Transplantação. Sta Eulália. Outubro 2008
29. Transplantação cardíaca: Experiência global de um centro
Catarina Neves, David Prieto, Emília Sola, Marta Costa, Pedro Antunes, Luís Eugénio,
José Ferrão de Oliveira, Manuel J Antunes
VII Congresso Luso-Brasileiro de Transplantação. Sta Eulália. Outubro 2008
30. Monitorização do ATP celular de células T em transplantados cardíacos
Rui Pratas, A Martinho, Emília Sola, Manuel J Antunes, Luísa Pais
VII Congresso Luso-Brasileiro de Transplantação. Sta Eulália. Outubro 2008
31. Transplantação cardíaca e reparação mitral no coração dador
David Prieto, Catarina Neves, Manuel J Antunes
VII Congresso Luso-Brasileiro de Transplantação. Sta Eulália. Outubro 2008
32. Rejeição humoral: importância do ecocardiograma no diagnóstico
Catarina Neves, David Prieto, Emília Sola, Manuel J Antunes
VII Congresso Luso-Brasileiro de Transplantação. Sta Eulália. Outubro 2008
33. Mitral valve repair: theory, principles and practice
Manuel J Antunes
Turkish Congress of Cardiovascular Surgery. Izmir, Turquia. Outubro 2008
34. Ignored valve. Tricuspid
Manuel J Antunes
Turkish Congress of Cardiovascular Surgery. Izmir, Turquia. Outubro 2008
35. Internato de cirurgia cardíaca e torácica: Análise crítica.
Manuel J Antunes
Congresso Internacional da Sociedade Portuguesa de Cirurgia Cardio-torácica e Vascular.
Évora. Novembro 2008
36. O que eu espero da Cardiologia de Intervenção
Manuel J Antunes
Jornadas de Cardiologia da Zona Centro. Praia D'el Rey. Novembro 2008
37. O impacto da biópsia do endomiocárdio no tratamento do transplantado cardíaco.
Catarina Neves
Ciclo de Formação Avançada em Cardiologia. Lisboa. Novembro 2008
38. Os jornalistas fazem parte de complots? A agenda dos media. (moderador)
Manuel J Antunes
A medicina e os media. Ordem dos medicos. Sines. Dezembro 2008
39. CP-2 MDMA contracted the human internal mammary artery through a partial agonistic
effect on 5-HT receptors.
S Silva, F Carvalho, E Fernandes, AM Teixeira, Manuel J Antunes, MD Cotrim
XXXIX Reunião Anual da Sociedade Portuguesa de Farmacologia. Lisboa. Dezembro 2008
40. CP-7 Tachyphylaxis to triptans-induced contractile effects in the human uterine and internal
mammary arteries but not in human cerebral blood vessels: pharmacological demonstration
of the loss of 5-HT₁ receptor subtypes functionality over the time.
S Silva, A Henriques, D Cotrim, Manuel J Antunes, CA Fontes Ribeiro
XXXIX Reunião Anual da Sociedade Portuguesa de Farmacologia. Lisboa. Dezembro 2008
41. Mitral valve repair surgery - when and how.
Manuel J Antunes
Euroecho. Lyon. Dezembro 2008
42. Detection of Atrial Fibrillation using model-based ECG analysis, ICPR2008
R Couceiro, P Carvalho, J Henriques, Manuel J Antunes, M Harris, R Schmidt
International Conference on Pattern Recognition. Tampa. Dezembro 2008