

References

- APhA special report. 1994 Opportunities for the community pharmacist in managed care. Washington: American Pharmaceutical Association
- American Society of Health System Pharmacists. ASHP statement on the pharmacist's available from <http://pharmacy.rutgers.edu/725/584/Drug%20Use%20Evaluation%20Reading.pdf> [2007 Jan. 7]
- American Society of Health-System Pharmacists. 1993. Criteria for drug use evaluation Volume 1-4 : ix-xi
- Armstrong E.P., et al. 2000 Epoetin Alfa Drug Use Evaluation Using A Software System: Lessons Learned Source: Disease Management & Health Outcomes, 8 (5) : 287-295(9) Available from <http://www.ingentaconnect.com/content/adis/dmho/2000/00000008/00000005/art00004> [2007 Jan 30]
- Athyros VG, Papageorgiou AA, Mercouris BR, et al. 2002. Treatment with Atorvastatin to the National Cholesterol Educational Program goal versus 'usual' care in secondary coronary heart disease prevention. The GREEK Atorvastatin and Coronary-heart-disease Evaluation (GREACE) study. Current Medical Research & Opinion 8:220-8
- Australian Medicines Handbook. 2005 Adelaide: Australian Medicines Handbook
- Cannon CP, Braunwald E, McCabe CH, et al. 2004 .Intensive versus Moderate Lipid Lowering with Statins after Acute Coronary Syndromes. New England Journal of Medicine. 350:1495-504.
- Center of Medicare & Medicaid Services. 2004. Electronic prescribing. Medicare Issue of the Day. August 24. Available from <http://www.cms.hhs.gov/medicareform/issueoftheday/08242004iotd.pdf>. [2004 August 26]
- Charnng-soong K. et al. Diabetes drug use for diabetes treatment : Case study of service quality in Universal Coverage, J.Health Science (2)12 : 530-540
- Aklepan C. 1997. The evaluation of anti-infective drug use general surgery infected prevention at Ramathibordhi hospital. Master's Thesis. Clinical Pharmacy Faculty of Pharmacy Mahidol University. Cited in Orapan Matankasombat et al. Drug utilization. In Suvit Vibulpolprasert, Vichai Chokvivat, and Sripen Tantivach (eds.). Thai drug system 2002: 200)

- Aklepan C. 2001 Primary results of essential drug use evaluation in a list (report) Cited in Orapan Matankasombat et al. Drug utilization. In Suvit Vibulpolprasert, Vichai Chokvivat, and Sripen Tantivach (eds.). Thai drug system 2002: 195
- Colhoun HM, Betteridge DJ, Durrington PN, et al. 2004 Primary prevention of cardiovascular disease with atorvastatin in type 2 diabetes in the Collaborative Atorvastatin Diabetes Study (CARDS): Multicentre randomised placebo-controlled trial. Lancet. 364: 685-96.
- Finance, Ministry. The Comptroller General's Department. 2006.
- Furberg CD, Wright Jr JT, Davis BR, et al. 2002 Major outcomes in moderately hypercholesterolemic, hypertensive patients randomized to pravastatin vs usual care: The antihypertensive and lipid-lowering treatment to prevent heart attack trial (ALLHAT-LLT). J.of the American Medical Association 288:2998-3007.
- Gallego, G., Metocco, T., Taylor, S., and Brien, J. 2004. Impact of high cost drugs for individual patient use. J.Pharmacy Practice and Research 13(2): 100-103
- GISSI Prevenzione Investigators. Results of the low-dose (20 mg) pravastatin GISSI
- Hankey, J., Eikelboom, W. 2003. Antiplatelet drugs MJA 178 : 568-574
Available from http://www.mja.com.au/public/issues/178_11_020603/han10033_fm.pdf [2007, Jan 5]
- Graber E., Seneker A., Stahl A. Franklin O., Neel, E., and Miller A. 1996.
Development of a Replicated Database of DHCP Data for Evaluation of Drug Use. J.of the American Medical Informatics Association 3 (2): 149-156
- Heart Protection Study Collaborative Group. 2002. MRC/BHF Heart Protection Study of cholesterol lowering with simvastatin in 20,536 high-risk individuals: a randomised placebo-controlled trial. Lancet;360:7-22.
- Helfand M, Carson S, Kelley C. 2005 Drug Class Review on HMG-CoA Reductase Inhibitors (Statins). Drug Effectiveness Review Project. Portland: Oregon Health and Science University. Available from <http://www.ohsu.edu/drugeffectiveness/reports/documents/Statins%20Final%20Report%20u3.pdf> [2007 March 13].

- Institutute for Clinical Evaluative Sciences. 2002. Hospital Funding for New Drug Technologies. Available from <http://www.ices.on.ca/file/new%20drug%20tech.pdf>. [2006, Oct 30]
- Joint Commission on the Accreditation of Healthcare Organizations. 1995 comprehensive accreditation manual for hospitals. Oakbrook Terrace (IL): Joint Commission on the Accreditation of Healthcare Organizations; 1994.
- Kanchanaphibool I. 2005. Health insurance schemes and patterns of drug use and care in diabetic outpatients. Doctoral dissertation Social and Administrative Pharmacy, Faculty of Pharmaceutical Sciences, Chulalongkorn University.
- Koren MJ, Hunninghake DB. 2004 Clinical outcomes in managed-care patients with coronary heart disease treated aggressively in lipid-lowering disease management clinics: The alliance study. J. American College of Cardiology.44:1772-9.
- Kozyrskyj, A., Lix, L., Dahl, M., Soodeen, R. 2005. High cost user of pharmaceuticals: Who are they?. Available from <http://www.umanitoba.ca/centres/mchp/reports.htm> [2006, Jan,6]
- Limwattananon S, Limwattananon C., and Pannarunotai S. 2003. Electronic database for hospital drug use analysis: Universal coverage policy evaluation instrument . J.Health Science 12(2): 169-183
- Macintyre, RC., Sindusake, D., and Rubin, G. 2001. Modelling strategies for reducing pharmaceutical costs in hospital. Int. J Qual Health Care 13(1) 63-69 Available from http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=11330446&dopt=Abstract [2006, Oct 30]
- Monrudee Pochanukul. 1999. NSAIDs prescribing for orthopedic out patients at Rachvithi hospital. Cited in Orapan Matangkasombat, et al. Drug utilization. In Suvit Vibulpolprasert, Vichai Chokvivat, and Sripen Tantivach (eds.). Thai drug system. 2002: 200-201
- Mossialos, E. 1998. Regulating expenditure on medicines in European Union countries. In R. B.Saltman; J. F. Figueras; and C. Sakellarides (eds.), Critical challenges for health care reform in Europe, 216-285, Great Britain: St Edmundsbury Press

- Mucklow, JC. 2000. How can we afford costly medicine?. J.Royal Collage of Physicians 34(2) 124-7 Available from <http://www.rcplondon.ac.uk/pubs/journal/journ34mar ed3.htm> [2006, Oct 30]
- Nathan, DM., Buse, JB., Davidson, MB., Heine, RJ., Holman, RR., Sherwin, R., Zinman, B. 2006. Management of hyperglycemia in type 2 diabetes : Management of hyperglycemia in type 2 diabetes: A consensus algorithm for the initiation and adjustment of therapy. *Diabetologia*. 49:1711-1721. (Published simultaneously in *Diabetes Care* 2006; 29: 1963-72. Available from http://www.lakare.lillydiabetes.se/press/diabetes/TZD_Updated_ADA_EASD_Consensus2008JAN.pdf [2006, July, 2]
- National Drug Committee. 2004. National List of Essential Medication 2004
- National Health Insurance office. 2006. Budget management.:104-105
- National Institute for Health Care Management Research and Educational Foundation. 1999 cited in Vithaya Kulsomboon, Suvaree Tearngpitak, and Satitpong Thanaviriyakul, 2002. Drug financing system. In Suvit Vibulpolprasert; Vichai Chokvivat; Sripen Tantivech (eds), *Thai drug system*, 167. Bangkok: Thailand Agricultural Cooperation Club
- Palumbo FB, Ober J. Drug use evaluation. In: *Principles and practices of managed care pharmacy*. 1995. Alexandria (VA): Academy of Managed Care Pharmacy; p. 51-60.
- Pedersen TR. 1994 Randomised trial of cholesterol lowering in 4444 patients with coronary heart disease: The Scandinavian Simvastatin Survival Study (4S). Lancet 344: 1383-9.
- Phosri J., Kulsomboon V., and Kiatying-Angsulee N.. 2005. Impact of COX-2 inhibitors in Thai orthopaedic outpatients. J.Pharmacy Practice and Research (2)35: 115-118)
- Pongchareonsuk P. 2003 Cost of diabetes disease in government hospitals in 2002-2003 in *The guide for quality development and controlling government health care service expenditure by National essential drug list and rational drug use*, Minute at Food and Drug Administration on 2 November 2006.
- Prescribing of expensive medicine [Online] J. The Pharmaceutical 264 (7092) 574 April 15, 2000 Clinical Available from <http://www.pjonline.com/Editorial/20000415/clinical/expensivemedicines.html> [2005, May 1]

- Prevenzione trial in 4271 patients with recent myocardial infarction: do stopped trials contribute to overall knowledge? 2000. J. Italian Heart .1:810-20.
- Puangpen Soyson, Chalerm Sri pummang goon, and Banharn Jirapanya. 1992. Pattern of cephalosporin injection prescribing at Taksin hospital J. Taksin vetchasarn. 10(2): 78-116 Cited in Orapan Matankasombat et al. Drug utilization. In Suvit Vibulpolprasert, Vichai Chokvivat, and Sripen Tantivach (eds.). Thai drug system 2002: 200)
- Rietveld, A.H., and Haaijer- Ruskamp, F.M. Policy options for cost containment of Pharmaceuticals. In Dukes, M.N.G.; Haaijer, F.M.; Joncheere, C.P.; Rietveld, A.H. (eds.), Drug and money : 29-54. Natherlands.
- Sacks FM, Pfeffer MA, Moye LA, et al. 1996 The effect of pravastatin on coronary events after myocardial infarction in patients with average cholesterol levels. New England Journal of Medicine .335:1001-9.
- Sangthong S. 2000. Evaluating and monitoring Imipenem/cilastatin in Maharat hospital. J.Maharat Nakornratchasima hospital. 14(2) Cited in Orapan Matankasombat et al. Drug utilization. In Suvit Vibulpolprasert, Vichai Chokvivat, and Sripen Tantivach (eds.). Thai drug system 2002: 200.
- Sever PS, Dahlof B, Poulter NR, et al. 2003 Prevention of coronary and stroke events with atorvastatin in hypertensive patients who have average or lower-than-average cholesterol concentrations, in the Anglo-Scandinavian Cardiac Outcomes Trial – Lipid Lowering Arm (ASCOT-LLA): A multicentre randomised controlled trial. Lancet 361:1149-58.
- Shepherd J, Blauw GJ, Murphy MB, et al. Pravastatin in elderly individuals at risk of vascular disease (PROSPER): A randomised controlled trial. 2002 Lancet .360: 1623-30.
- Shepherd J, Cobbe SM, Ford I, et al. 1995. Prevention of coronary heart disease with pravastatin in men with hypercholesterolemia. West of Scotland Coronary Prevention Study Group. New England Journal of Medicine 333:1301-7.
- Shireman, I. T., Harnung, R.W., Ho, M., Moomaw, C. J., and Jang, R. 2002. Medicaid Managed Care Prescription Use and Cost Saving, J.American Pharmaceutical Association. 42(4): 587-593

- The Australian Health Care System and High Cost Medications (HCMs). Available from <http://ses.library.usyd.edu.au/bitstream/2123/1008/2/02whole.pdf> [2006, November 7] : 27,42,43
- Theresa I. Shireman, Richard W. Harnung, Mona Ho, Charles J. Moomaw, and Raymond Jang . 2002 Medicaid Managed Care Prescription Use and Cost Saving, J of the American Pharmaceutical Association , 42(4): 587-593
- Tonkin A, Alyward P, Colquhoun D, et al. Prevention of cardiovascular events and death with pravastatin in patients with coronary heart disease and a broad range of initial cholesterol levels. 1998 New England Journal of Medicine 339:1349-57.
- VHA Pharmacy Benefit Management Strategic Healthcare Group and the Medical Advisory Panel. April 2006. Available from <http://www.pbm.va.gov> [2006, June 10]
- Victorian Therapeutics Advisory Group. 2004. Hospital Price and Resource Allocation Review: Good practice model for controlling pharmaceutical costs in hospitals. Available from <http://www.health.vic.gov.au/vmac/downloads/phcosts.pdf> [2006, Oct 30] :28
- Wild S., Roglic G., Green A., Sicree R., and King H. 2004. Global Prevalence of Diabetes Estimates for the year 2000 and projections for 2030 DIABETES CARE . 27 (5) :1047-1053
- Kulsomboon V., Teanngpitak S, and Thanaviriyakul S., 2002. Drug financing system. In Suvit Vibulpolprasert; Vichai Chokvivat; Sripen Tantivech (eds), Thai drug system, 158,160. Bangkok: Thailand Agricultural Cooperation Club.
- Yates WN, Rupp MT, Schondelmeyer SW. 1991 A drug utilization evaluation primer: conceptual and operational aspects. Proceedings of the Group Health Association of America, Annual Meeting; Jun 25; New York.
- MunkratokvY., Kulsomboon V, and Sirisinsuk Y. 2006. The expenditure of high cost drug and the difference of their use in various health insurance schemes in a regional hospital in North-Eastern part, Thailand. The Thai Journal of Pharmaceutical Science 30 (Abstract supplement): 168

APPENDICIES

Appendix A:

General information of first Atorvastatin use CSMBS outpatients comparing between Conventional method and CAAT

Patients' characteristics		Conventional method. (N=148)		CAAT (N=148)	
		No. of patients	%	No. Of patients	%
Age					
Male	< 45 years	7	4.7	7	4.7
	≥ 45 years	68	45.9	68	45.9
Female	< 55 years	18	12.2	18	12.2
	≥ 55years	55	37.2	55	37.2
Lipid profile (mg/dl)					
LDL - Cholesterol	≤ 100l	11	7.4	9	6.1
	101 -130	23	15.5	21	14.2
	>130	61	41.2	53	35.8
TotalCholesterol	< 200	23	15.5	26	17.6
	200 -239	32	21.6	34	23.0
	≥ 240	53	35.8	50	33.8
HDL - cholesterol	< 40	4	2.7	5	3.4
	40 - 59	49	33.1	55	37.2
	≥60	35	23.6	33	22.3
Triglyceride	< 150	38	25.7	39	26.4
	150 - 199	35	23.6	35	23.6
	200 - 499	28	18.9	26	17.6
	≥ 500	1	0.7	1	0.7
Blood pressure					
Systolic BP	<140 mmHg	72	48.6	—	—
	≥140 mmHg	50	33.8	—	—
Diastolic BP	< 90 mmHg	92	62.2	—	—
	≥ 90 mmHg	30	20.3	—	—

Appendix A: (cont.)

General information of first Atorvastatin use CSMBS outpatients comparing between Conventional method and CAAT

Patients' characteristics		Conventional method. (N=148)		CAAT (N=148)	
		No. of patients	%	No. Of patients	%
Prevalence of	Diabetes	58	39.2	55	37.2
CHD/CHD equivalent diseases	Angina pectoris	3	2	3	2
	Ichemic heart disease	14	9.5	12	8.1
	Artherosclerosis	14	9.5	12	8.1
	Thrombosis	1	0.7	1	0.7
	Myocardial infraction	7	4.7	6	4.1
	Transcient ichemic attack	1	0.7	1	0.7
	Stroke	7	4.7	6	4.1
Prevalence of related disease	Hypertension	116	78.4	106	71.6
Type of CHD prevention	Primary prevention	68	45.9	75	50.7
	Secondary prevention	80	54.1	73	49.3
Simvastatin use					
Dose	10 mg	19	12.8	19	12.8
	20 mg	9	6.1	10	6.8
	30 mg	2	1.4	1	0.7
	40 mg	1	0.7	1	0.7
Duration	< 3 months	10	6.8	7	4.7
	≥ 3 months	21	14.2	24	16.2
Atorvastatin use					
use	5 mg	9	6.1	9	6.1
	10 mg	123	83.1	123	83.1
	15 mg	1	0.7	1	0.7
	20 mg	15	10.1	15	10.1

Appendix B:

Percentage of patients initiating the use of Atorvastatin follow SLA pattern classified by type of CHD prevention dose and duration of Simvastatin use in any level of LDL-cholesterol

Type of CHD prevention	Duration of Simvastatin use	Dose of Simvastatin use (mg)	Percentage of patients (N)					
			Conventional method (N=16) LDL cholesterol level (mg/dl)			CAAT (N=13) LDL cholesterol level (mg/dl)		
			≤100	>100	>130	≤100	>100	>130
Primary prevention	< 3 months	10	1 (6.3)					
	"	20			1 (6.3)			
	≥ 3 months	10			1 (6.3)			1 (7.7)
	"	20					1 (7.7)	1 (7.7)
"	30		1 (6.3)					
Secondary prevention	< 3 months	10			1 (6.3)			1 (7.7)
	≥ 3 months	10	2 (12.5)	5 (31.3)	1 (6.3)	2 (15.4)	4 (30.8)	1 (7.7)
	"	20	1 (6.3)	1 (6.3)	1 (6.3)	1 (7.7)	1 (7.7)	

Appendix C:

General information of first Rosiglitazone use CSMBS outpatients comparing between Conventional method and CAAT

Patients' characteristics		Conventional method (N =74)		CAAT (N =74)	
		No. of patients	%	No. of patients	%
Age	< 40 years	5	6.8	5	6.8
	40,< 60 years	27	36.5	27	36.5
	≥ 60 years	42	56.8	42	56.8
Sex	Male	43	58.1	43	58.1
	Female	31	41.9	31	41.9
Glycate					
Haemoglobin					
(HbA1C)	≥ 7	22	29.7	20	27.0
Blood pressure					
Systolic BP	<130 mmHg	20	26.3	—	—
	≥130 mmHg	38	50.0	—	—
Diastolic BP	< 80 mmHg	26	34.2	—	—
	≥ 80 mmHg	32	42.1	—	—
Prevalence of underlining or complication diseases	Hypertension	45	60.8	43	58.1
	Hyperlipidemia	28	37.8	24	32.4
	Chronic renal failure	3	4.1	3	4.1
	Angina pectoris	2	2.7	2	2.7
	Ichemic heart disease	2	2.7	2	2.7
	Artherosclerosis	2	2.7	2	2.7
	Myocardial infragsion	1	1.4	1	1.4
	Congestive heart failure	2	2.7	2	2.7
Metformin use					
Dose/day	500 mg	8	10.8	8	10.8
	1000 mg	24	32.4	24	32.4
	1500 mg	11	14.9	10	13.5
	2000 mg	17	23.0	17	23.0
	3000 mg	3	4.1	3	4.1

Appendix C:(cont.)

General information of first Rosiglitazone use CSMBS outpatients comparing between Conventional method and CAAT

Patients' characteristics		Conventional method (N =74)		CAAT (N =74)	
		No. of patients	%	No. of patients	%
Duration	< 3months	13	17.6	13	17.6
	≥ 3 months	50	67.6	49	66.2
Rosiglitazone use Dose/day	2 mg	4	5.4	4	5.4
	4 mg	69	93.2	69	93.2
	8 mg	1	1.4	1	1.4

Appendix D:

General information of first Atorvastatin use CSMBS outpatients in four regional hospitals

Patients' informations	Percentage of patients				
	Hosp.1 N=307	Hosp.2 N= 175	Hosp.3 N= 56	Hosp.4 N =46	Total N= 584
Age (years)					
Male < 45	11(3.6)	9(5.1)	0	0.0	20 (3.4)
Male ≥45	135(44.0)	84(48.0)	24(42.9)	17(36.9)	260(44.5)
Female < 55	50(16.3)	22(12.6)	7(12.5)	5(10.9)	84(14.4)
Female ≥55	111(36.1)	60(34.3)	25 (44.6)	24(52.2)	220(37.7)
Mean (SD)	61.7 (12.4)	61.5 (10.9)	62.0 (9.0)	64.1(10.8)	61.8(11.5)
Lipid profile (mg/dl)					
LDL - cholesterol ≤100	31(10.1)	24(13.7)	10(17.9)	4(8.7)	69(11.8)
LDL - cholesterol 101 -130	43(14.0)	23(13.1)	11(19.6)	9(19.6)	86(14.7)
LDL - cholesterol >130	93(30.3)	62(35.4)	17(30.4)	8(17.4)	180(30.8)
Mean (SD)	138.0(45.0)	139.9(51.5)	124.8(39.0)	128.4(32.1)	136.5(46.0)
HDL - cholesterol < 40	12(3.9)	46(26.3)	9(16.1)	0.0	67(11.5)
HDL - cholesterol 40 - 59	89(29.0)	51(29.1)	11(19.6)	7(15.2)	158(27.1)
HDL - cholesterol ≥60	66(21.5)	13(7.4)	8(14.3)	2(4.3)	89(15.2)
Mean (SD)	56.9 (14.3)	43.5 (12.8)	51.0 (17.7)	52.4(8.5)	51.6 (15.3)
Total Cholesterol < 200	43 (14.0)	43 (24.6)	9 (16.1))	3 (6.5)	98 (16.8)
Total Cholesterol 200 -239	57 (18.6)	25 (14.3)	5 (8.9)	5 (10.9)	92 (15.8)
Total Cholesterol ≥240	67 (21.8)	42 (24.0)	8 (14.3)	3 (6.5)	120 (20.5)
Mean (SD)	230.0(61.0)	217.8(58.8)	211.5(51.4)	221.9(36.2)	224.1(59.0)
Triglyceride < 150	72 (23.5)	61 (34.9)	9 (16.1)	4 (8.7)	146 (25.0)
Triglyceride 150 - 199	53 (17.3)	21 (12.0)	7 (12.5)	2 (4.3)	83 (14.2)
Triglyceride 200 - 499	40 (13.0)	26 (14.9)	7 (12.5)	5 (10.9)	78 (13.4)
Triglyceride ≥ 500	2 (0.7)	2 (1.1)	-	-	4 (0.7)
Mean (SD)	175.7(100.0)	168.3(104.4)	175.5(93.8)	178.3(85.1)	173.1(100.3)
Prevalence of CHD/CHD equivalent diseases					
Diabetes	107 (34.9)	59 (33.7)	17 (30.4)	13 (28.3)	196 (33.6)
Angina pectoris	10 (3.3)	4 (2.3)	-	6 (13)	20 (3.4)
Ichemic heart disease	33 (10.7)	22 (12.6)	-	1 (2.2)	56 (9.6)
Artherosclerosis	24 (7.8)	-	7 (12.5)	1 (2.2)	32 (5.5)
Thrombosis	1 (0.3)	-	-	-	1 (0.2)
Myocardial infraction	25 (8.1)	9 (5.1)	2 (3.6)	-	36 (6.2)
Transient icemic attack	3 (1.0)	1 (0.6)	-	1 (2.2)	5 (0.9)
Stroke	16 (5.2)	10 (5.7)	1(1.8)	-	27 (4.6)

Appendix D: (cont.)

General information of first Atorvastatin use CSMBS outpatients in four regional hospitals

Patients' informations		Percentage of patients				
		Hosp.1 N =307	Hosp.2 N= 175	Hosp.3 N= 56	Hosp.4 N =46	Total N= 584
Prevalence of related disease	Hypertension	173 (56.4)	94 (53.7)	29 (51.8)	26 (56.5)	322(55.1)
	Hyperlipidaemia	76 (24.7)	56 (32.0)	27 (48.2)	12 (26.1)	171(29.3)
Type of CHD prevention	Primary prevention	144 (46.9)	87 (49.7)	32 (57.1)	27 (58.7)	290(49.7)
	Secondary prevention	163 (53.1)	88 (50.3)	24 (42.9)	19 (41.3)	294(50.3)
Simvastatin use						
Dose	10 mg	48 (15.6)	13 (7.4)	10 (17.9)	8 (17.4)	79 (13.5)
	20 mg	23 (7.5)	34 (19.4)	7 (12.5)	3 (6.5)	67 (11.5)
	30 mg	1 (0.3)	0.0	1 (1.8)	0	2 (0.3)
	40 mg	2 (0.6)	2 (1.1)	0	1 (2.2)	5 (0.9)
	Mean (SD)	14.2(6.6)	18.1(6.3)	15.0 (6.0)	15.0 (9.0)	15.6 (6.9)
Duration	< 3 months	21 (6.8)	18 (10.3)	5 (8.9)	3 (6.5)	47 (8.0)
	>= 3 months	53 (17.3)	31 (17.7)	13 (23.2)	9 (19.6)	106(18.1)
	Mean (SD)	8.0 (5.5)	5.4 (4.6)	8.5 (6.2)	7.8 (4.4)	7.2 (5.4)
Atorvastatin use						
	5 mg	18 (5.7)	0.0	0	3 (6.5)	21 (3.6)
	10 mg	254 (82.7)	81 (46.3)	25 (44.6)	39 (84.8)	399(68.3)
	15 mg	1 (0.3)	0.0	0	0.0	1 (0.2)
	20 mg	31 (10.1)	88 (50.3)	30 (53.6)	4 (8.7)	153(26.2)
	30 mg	0	1 (0.6)	0	0.0	1 (0.2)
	40 mg	3 (1.0)	5 (2.9)	1 (1.8)	0.0	9 (1.5)
	Mean (SD)	11.0 (4.4)	16.0 (6.5)	15.9 (6.0)	10.5(3.2)	12.9(5.7)

Appendix E:

General information of first Rosiglitazone use CSMBS outpatients in two regional hospitals

Patients' informations		Percentage of patients					
		Hosp. (N = 80)		Hosp.2 (N= 7)		Total (N = 87)	
		No.	%	No.	%	No.	%
Age	< 40 years	6	7.5			6	6.9
	< 60 years	30	37.5	4	57.1	34	39.1
	≥ 60 years	44	55	3	42.9	47	54
	Mean (SD)	60.6 (12.3)		62.7 (18.3)		60.6 (12.8)	
Sex	Male	34	42.5	4	57.1	50	57.5
	Female	46	57.5	3	42.9	37	42.5
Glycate haemoglobin (HbA1C)	< 7%	1	1.3			1	1.1
	≥ 7%	21	26.3			21	24.1
	Mean (SD)	9.1 (1.9)				9.1 (1.9)	
Prevalence of underlining and /or complication diseases	Hypertension	46	57.5	4	57.1	50	57.5
	Hyperlipidemia	26	32.5			26	29.5
	Chronic renal failure	3	3.8	2	28.6	5	5.7
	Angina pectoris	2	2.5			2	2.3
	Ichemic heart disease	2	2.5			2	2.3
	Artherosclerosis	2	2.5			2	2.3
	Myocardial infragsion	1	1.3			1	1.1
	Congestive heart failure	2	2.5			2	2.3
	Stroke	1	1.3			1	1.1
	Metformin use						
Dose/day	500 mg	8	10			8	9.2
	1000 mg	26	32.5	1	14.3	27	31.0
	1500 mg	10	12.5	1	14.3	11	12.6
	2000 mg	18	22.5	2	28.6	20	23.0
	3000 mg	4	5			4	4.6
	Mean (SD)	1,409.1 (609.9)		1,625 (478.7)		1,421.4 (640.6)	
Duration	< 3 months	15	18.8	3	42.9	18	20.7
	≥ 3 months	51	63.8	1	14.3	52	59.8
	Mean (SD)	8.3 (4.5)		2.0 (3.1)		7.9 (4.4)	

Appendix E: (cont.)

General information of first Rosiglitazone use CSMBS outpatients in two regional hospitals

Patients' infromations		Percentage of patients					
		Hosp. (N = 80)		Hosp.2 (N= 7)		Total (N = 87)	
		No.	%	No.	%	No.	%
Rosiglitazone dose	2 mg	4	5			4	4.6
	4 mg	74	92.5	6	85.7	80	92.0
	8 mg	2	2.5	1	14.3	3	3.4
	Mean (SD)	4.0 (0.8)		4.6 (1.5)		4.0 (0.9)	

BIOGRAPHY

Miss Yupapun Munkratok was born on January 1, 1964 at Nakornrachasima Province, Thailand. She received her Bachelor's degree in Pharmaceutical Sciences from Chulalongkorn University in 1988. She received her Master of Primary Health Care Management at ASEAN Institute for Health Development, Mahidol University in 1995. Her working experiences were at Sungneon community hospitals, Provincial health office Nakhornrachasima Province. She currently works at Maharat Nakhonratsima Hospital.

