



CHAPTER 5 : **OUTCOME**

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Summary

1. Overall, the in-hospital mortality was low at 1.5% (1.1% in 2007-2009 vs 1.8% in 2010-2012), The overall 30-day mortality and one year mortality were 2% and 3.9% respectively.
2. The incidents of periprocedural complications were low. Periprocedure MI (based on clinical diagnosis) was 0.4% and emergency reintervention was 0.3%.
3. Mortality prognosticators were similar over the two cohorts (2007-2009 and 2010-2012) ie age, clinical presentation & status of PCI, diabetics, female and being hypertensive.

The overall in-hospital all cause mortality for the entire cohort for year 2007-2012 was 1.5% (1.8% in 2010-2012 vs. 1.1% in 2007- 2009). [Table 5.2] This was probably contributed by increasing number of non-elective (acute) PCI cases (15.5% vs. 9.2%). [Table 5.8] Majority of deaths were cardiac causes(78.2%), followed by 2.4% infection. [Table 5.11]

The occurrences of post-procedure complications were low; arrhythmia (0.6%), bleeding (0.5%), cardiogenic shock (0.4%), new renal impairment (0.2%) . The occurrences of periprocedural MI (0.4%), re-intervention (0.3%). There was no difference between the two periods. [Table 5.1]

Regarding medication, more than 90.0% of cases were on dual antiplatelet (aspirin and clopidogrel) at hospital discharge; however, decreased trend of DAPT usage at one year was observed (59.7%). [Table 5.10]

30-day readmissions for 2007-2012 were 5.6%. Most of the readmissions were for staged PCI(55.5%) Only 11.8% were due to recurrent angina and 1.8% of the readmissions were due to myocardial infarction. [Table 5.16]

Overall, mortality at discharge in 2007-2012 was higher in elderly patients (2.2%) compared to middle age (1.1%) and young patients (0.5%); by gender (2.1% in female vs. 1.4% male); by diabetes status (1.7% in diabetic vs. 1.0% in non-diabetic); by premorbid hypertension (1.4% in hypertensive vs. 1.2% in non-hypertensive) and by PCI status (8.8% in non-elective PCI vs. 0.5% in elective PCI). [Table 5.3, 5.4, 5.5, 5.6, and 5.8]

Table 5.1 Summary of in-hospital outcome for patients who underwent PCI, NCVD-PCI Registry, 2007-2012

	2007-2009 Total no. of procedures = 11621		2010 Total no. of procedures = 4462		2011 Total no. of procedures = 4887		2012 Total no. of procedures = 5513		2010-2012 Total no. of procedures = 14862		2007-2012 Total no. of procedures = 26483	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Periprocedural MI, No. (%) (based on clinical diagnosis)												
Yes	51	0.4	7	0.2	33	0.7	18	0.3	58	0.4	109	0.4
No	11465	98.7	4438	99.5	4834	98.9	5446	98.8	14718	99.0	26183	98.9
Not available	14	0.1	17	0.3	16	0.3	43	0.8	76	0.5	90	0.3
Missing	91	0.8	0	0	4	0.1	6	0.1	10	0.1	101	0.4
Emergency reintervention/PCI, No. (%)												
Yes	29	0.3	7	0.2	19	0.4	13	0.3	39	0.2	68	0.3
No	11494	98.9	4455	99.8	4864	99.5	5493	99.6	14812	99.7	26306	99.3
Missing	98	0.8	0	0	4	0.1	7	0.1	11	0.1	109	0.4
Bail-out CABG, No. (%)												
Yes	6	0.1	0	0	2	0.0	0	0	2	0.0	8	0.0
No	11524	99.2	4462	100.0	4881	99.9	5506	99.9	14849	99.9	26373	99.6
Missing	91	0.7	0	0	4	0.1	7	0.1	11	0.1	102	0.4
Other complications												
Cardiogenic shock (after procedure), No. (%)												
Yes	64	0.5	11	0.2	17	0.3	20	0.4	48	0.3	112	0.4
No	11466	98.7	4451	99.8	4866	99.6	5486	99.5	14803	99.6	26269	99.2
Missing	91	0.8	0	0	4	0.1	7	0.1	11	0.1	102	0.4



	2007-2009 Total no. of procedures = 11621		2010 Total no. of procedures = 4462		2011 Total no. of procedures = 4887		2012 Total no. of procedures = 5513		2010-2012 Total no. of procedures = 14862		2007-2012 Total no. of procedures = 26483	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Arrhythmia (VT/VF/Brady), No. (%)												
Yes	63	0.5	18	0.4	22	0.4	43	0.8	83	0.5	146	0.6
No	11467	98.7	4444	99.6	4861	99.5	5463	99.1	14768	99.4	26235	99.1
Missing	91	0.8	0	0	4	0.1	7	0.1	11	0.1	102	0.3
TIA/Stroke, No. (%)												
Yes	6	0.0	0	0	1	0.0	3	0.1	4	0.0	10	0.0
No	11525	99.2	4462	100.0	4882	99.9	5503	99.8	14847	99.9	26372	99.6
Missing	90	0.8	0	0	4	0.1	7	0.1	11	0.1	101	0.4
Tamponade, No. (%)												
Yes	6	0.0	0	0	3	0.0	8	0.1	11	0.1	17	0.0
No	11524	99.2	4462	100.0	4880	99.9	5498	99.8	14840	99.8	26364	99.6
Missing	91	0.8	0	0	4	0.1	7	0.1	11	0.1	102	0.4
Contrast reaction, No. (%)												
Yes	9	0.1	1	0.0	1	0.0	4	0.1	6	0.0	15	0.1
No	11519	99.1	4461	100.0	4882	99.9	5501	99.8	14844	99.9	26363	99.5
Missing	93	0.8	0	0	4	0.1	8	0.1	12	0.1	105	0.4
New onset/worsened heart failure, No. (%)												
Yes	12	0.1	2	0.0	0	0	7	0.1	9	0.1	21	0.1
No	11513	99.1	4460	100.0	4883	99.9	5499	99.8	14842	99.8	26355	99.5
Missing	96	0.8	0	0	4	0.1	7	0.1	11	0.1	107	0.4

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	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
New renal impairment, No. (%)												
Yes	18	0.2	2	0.0	13	0.3	16	0.3	31	0.2	49	0.2
No	11269	96.9	4398	98.6	4863	99.5	5477	99.3	14738	99.2	26007	98.2
Not available	239	2.1	62	1.4	7	0.1	13	0.3	82	0.5	321	1.2
Missing	95	0.8	0	0	4	0.1	7	0.1	11	0.1	106	0.4
Max post procedural rise in creatinine, No. (%)												
Yes	40	0.3	7	0.2	23	0.5	22	0.4	52	0.3	92	0.3
No	10966	94.4	4359	97.7	4822	98.7	5419	98.3	14600	98.2	25566	96.5
Not available	499	4.3	81	1.8	12	0.2	33	0.6	126	0.9	625	2.4
Missing	116	1.0	15	0.3	30	0.6	39	0.7	84	0.6	200	0.8
Max post procedural rise in creatinine results, micromol/L												
N		40		7		23		22		52		92
Mean (SD)		371.9 (215.2)		503.1 (614.6)		595.7 (812.0)		330.0 (174.2)		470.8 (597.6)		427.8 (471.6)
Median(min.,max)		351.0 (86.0, 890.0)		324.0 (155.0, 1872.0)		497.0 (85.0, 4190.0)		327.5 (99.0, 865.0)		366.5 (85.0, 4190.0)		355.0 (85.0, 4190.0)
Vascular complications												
Bleeding, No. (%)												
Yes	79	0.6	15	0.3	15	0.3	28	0.5	58	0.4	137	0.5
No	11419	98.3	4447	99.7	4868	99.6	5478	99.4	14793	99.5	26212	99.0
Missing	123	1.1	0	0	4	0.1	7	0.1	11	0.1	134	0.5



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	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Type of bleeding, No. (%)												
Major	5	7.1	2	13.3	3	23.0	3	12.0	8	15.1	13	10.5
Minor	13	18.3	6	40.0	5	38.5	7	28.0	18	34.0	31	25.0
Minimal	53	74.6	7	46.7	5	38.5	15	60.0	27	50.9	80	64.5
Not available	4		0		2		3		5		9	
Missing	4		0		0		0		0		4	
Bleeding site, No. (%)												
Retroperitoneal	1	1.5	1	7.1	0	0	1	3.8	2	3.7	3	2.5
Percutaneous entry site	56	84.8	10	71.5	6	42.9	17	65.4	33	61.1	89	74.2
Others	9	13.7	3	21.4	8	57.1	8	30.8	19	35.2	28	23.3
Not available	6		1		1		1		3		9	
Missing	7		0		0		1		1		8	
Access site occlusion, No. (%)												
Yes	10	0.1	0	0	2	0.0	0	0	2	0.0	12	0.0
No	11510	99.0	4454	99.8	4868	99.6	5495	99.7	14817	99.7	26327	99.5
Missing	101	0.9	8	0.2	17	0.4	18	0.3	43	0.3	144	0.5
Loss distal pulse, No. (%)												
Yes	2	0.0	0	0	0	0	0	0	0	0	2	0.0
No	11514	99.1	4453	99.8	4871	99.7	5491	99.6	14815	99.7	26329	99.4
Missing	105	0.9	9	0.2	16	0.3	22	0.4	47	0.3	152	0.6

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	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Dissection, No. (%)												
Yes	30	0.3	1	0.0	3	0.1	3	0.0	7	0.1	37	0.1
No	11484	98.8	4449	99.7	4864	99.5	5490	99.6	14803	99.6	26287	99.3
Missing	107	0.9	12	0.3	20	0.4	20	0.4	52	0.3	159	0.6
Pseudoaneurysm, No. (%)												
Yes	8	0.0	2	0.0	2	0.0	5	0.1	9	0.0	17	0.1
No	11489	98.9	4441	99.6	4850	99.2	5476	99.3	14767	99.4	26256	99.1
Missing	124	1.1	19	0.4	35	0.8	32	0.6	86	0.6	210	0.8
Management of pseudoaneurysm, No. (%)												
Ultrasound compression	0	0	1	50.0	0	0	4	80.0	5	62.5	5	41.7
Surgery	1	25.0	0	0	0	0	0	0	0	0	1	8.3
Others	3	75.0	1	50.0	1	100.0	1	20.0	3	37.5	6	50.0
Not available	3		0		1		0		1		4	
Missing	1		0		0		0		0		1	

Table 5.2 Overall outcome of patients who underwent PCI, NCVD-PCI Registry, 2007-2012

Year	*Outcome	Overall outcome											
		Outcome at discharge		**30-day		***6-month		****1-year					
		No.	%	No.	%	No.	%	No.	%				
2007-2009 Total no. of patients = 10709	Death	123	1.1	186	1.7	294	2.7	409	3.8				
	Alive	10586	98.9	10523	98.3	10415	97.3	10300	96.2				
	Total	10709	100.0	10709	100.0	10709	100.0	10709	100.0				
2010 Total no. of patients = 4157	Death	48	1.2	78	1.9	151	3.6	237	5.7				
	Alive	4109	98.8	4079	98.1	4006	96.4	3920	94.3				
	Total	4157	100.0	4157	100.0	4157	100.0	4157	100.0				
2011 Total no. of patients = 4487	Death	90	2.0	111	2.5	138	3.1	162	3.6				
	Alive	4397	98.0	4376	97.5	4349	96.9	4325	96.4				
	Total	4487	100.0	4487	100.0	4487	100.0	4487	100.0				
2012 Total no. of patients = 5106	Death	110	2.2	124	2.4	132	2.6	140	2.7				
	Alive	4996	97.8	4982	97.6	4974	97.4	4966	97.3				
	Total	5106	100.0	5106	100.0	5106	100.0	5106	100.0				
2010-2012 Total no. of patients = 13750	Death	248	1.8	313	2.3	421	3.1	539	3.9				
	Alive	13502	98.2	13437	97.7	13329	96.9	13211	96.1				
	Total	13750	100.0	13750	100.0	13750	100.0	13750	100.0				
2007-2012 Total no. of patients = 24459	Death	371	1.5	499	2.0	715	2.9	948	3.9				
	Alive	24088	98.5	23960	98.0	23744	97.1	23511	96.1				
	Total	24459	100.0	24459	100.0	24459	100.0	24459	100.0				

*The outcome data has been derived based on data matching with National Death Register data

** Including patients who died in hospital, *** Including patients who died in hospital & 30-day, **** Including patients who died in hospital, 30-day and 6-month

Table 5.3 Overall outcome for patients who underwent PCI, by age group (years), NCVI-PCI Registry, 2007-2012

Year	*Outcome	Outcome at discharge			**30-day			***6-month			****1-year		
		Young	Middle-aged	Elderly	Young	Middle-aged	Elderly	Young	Middle-aged	Elderly	Young	Middle-aged	Elderly
		No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
2007-2009 Total no. of patients = 10709	Death	2 (0.4)	45 (0.7)	76 (1.8)	7 (1.6)	63 (1.0)	116 (2.7)	10 (2.2)	106 (1.8)	178 (4.2)	14 (3.1)	148 (2.5)	247 (5.8)
	Alive	448 (99.6)	5970 (99.3)	4168 (98.2)	443 (98.4)	5952 (99.0)	4128 (97.3)	440 (97.8)	5909 (98.2)	4066 (95.8)	436 (96.9)	5867 (97.5)	3997 (94.2)
	Total	450 (100.0)	6015 (100.0)	4244 (100.0)	450 (100.0)	6015 (100.0)	4244 (100.0)	450 (100.0)	6015 (100.0)	4244 (100.0)	450 (100.0)	6015 (100.0)	4244 (100.0)
2010-2012 Total no. of patients = 13750	Death	3 (0.5)	103 (1.4)	142 (2.5)	3 (0.5)	133 (1.8)	177 (3.1)	5 (0.8)	180 (2.4)	236 (4.1)	8 (1.4)	228 (3.1)	303 (5.3)
	Alive	589 (99.5)	7310 (98.6)	5603 (97.5)	589 (99.5)	7280 (98.2)	5568 (96.9)	587 (99.2)	7233 (97.6)	5509 (95.9)	584 (98.6)	7185 (96.9)	5442 (94.7)
	Total	592 (100.0)	7413 (100.0)	5745 (100.0)	592 (100.0)	7413 (100.0)	5745 (100.0)	592 (100.0)	7413 (100.0)	5745 (100.0)	592 (100.0)	7413 (100.0)	5745 (100.0)
2007-2012 Total no. of patients = 24459	Death	5 (0.5)	148 (1.1)	218 (2.2)	10 (1.0)	196 (1.5)	293 (2.9)	15 (1.4)	286 (2.1)	414 (4.1)	22 (2.1)	376 (2.8)	550 (5.5)
	Alive	1037 (99.5)	13280 (98.9)	9771 (97.8)	1032 (99.0)	13232 (98.5)	9696 (97.1)	1027 (98.6)	13142 (97.9)	9575 (95.9)	1020 (97.9)	13052 (97.2)	9439 (94.5)
	Total	1042 (100.0)	13428 (100.0)	9989 (100.0)	1042 (100.0)	13428 (100.0)	9989 (100.0)	1042 (100.0)	13428 (100.0)	9989 (100.0)	1042 (100.0)	13428 (100.0)	9989 (100.0)

*The outcome data has been derived based on data matching with National Death Register data

** Including patients who died in hospital, *** Including patients who died in hospital & 30-day, ****Including patients who died in hospital, 30-day and 6-month Young is defined as age from 20 to less than 40 years, middle-aged is defined as age between 40 to less than 60 years and elderly is defined as 60 years and above



Table 5.4 Overall outcome of patients who underwent PCI, by gender, NCVI-PCI Registry, 2007-2012

Year	*Outcome	**30-day						***6-month				****1-year					
		Outcome at discharge		Male		Female		Male		Female		Male		Female			
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%		
2007-2009 Total no. of patients = 10709	Death	87	1.0	36	1.8	128	1.5	58	2.9	199	2.3	95	4.8	288	3.3	121	6.1
	Alive	8644	99.0	1942	98.2	8603	98.5	1920	97.1	8532	97.7	1883	95.2	8443	96.7	1857	93.9
	Total	8731	100.0	1978	100.0	8731	100.0	1978	100.0	8731	100.0	1978	100.0	8731	100.0	1978	100.0
2010-2012 Total no. of patients = 13750	Death	194	1.7	54	2.2	242	2.1	71	2.9	325	2.9	96	4.0	406	3.6	133	5.5
	Alive	11148	98.3	2354	97.8	11100	97.9	2337	97.1	11017	97.1	2312	96.0	10936	96.4	2275	94.5
	Total	11342	100.0	2408	100.0	11342	100.0	2408	100.0	11342	100.0	2408	100.0	11342	100.0	2408	100.0
2007-2012 Total no. of patients = 24459	Death	281	1.4	90	2.1	370	1.8	129	2.9	524	2.6	191	4.4	694	3.5	254	5.8
	Alive	19792	98.6	4296	97.9	19703	98.2	4257	97.1	19549	97.4	4195	95.6	19379	96.5	4132	94.2
	Total	20073	100.0	4386	100.0	20073	100.0	4386	100.0	20073	100.0	4386	100.0	20073	100.0	4386	100.0

*The outcome data has been derived based on data matching with National Death Register data

** Including patients who died in hospital, *** Including patients who died in hospital & 30-day, ****Including patients who died in hospital,30-day and 6-month

Table 5.5 Overall outcome of patients who underwent PCI, by pre-morbid diabetes, NCVVD-PCI Registry, 2007-2012

Year	*Outcome	Outcome at discharge				**30-day				***6-month				****1-year				
		Diabetic	Non-diabetic	Not known	Missing	Diabetic	Non-diabetic	Not known	Missing	Diabetic	Non-diabetic	Not known	Missing	Diabetic	Non-diabetic	Not known	Missing	
		No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	
2007-2009 Total no. of patients = 10709	Death	76 (1.5)	38 (0.7)	8 (3.8)	1 (4.5)	115 (2.3)	60 (1.1)	10 (4.8)	1 (4.5)	195 (3.9)	87 (1.6)	11 (5.3)	1 (4.5)	272 (5.5)	123 (2.2)	13 (6.2)	1 (4.5)	
	Alive	4862 (98.5)	5502 (99.3)	201 (96.2)	21 (95.5)	4823 (97.7)	5480 (98.9)	199 (95.2)	21 (95.5)	4743 (96.1)	5453 (98.4)	198 (94.7)	21 (95.5)	4666 (94.5)	5417 (97.8)	196 (93.8)	21 (95.5)	
	Total	4938 (100.0)	5540 (100.0)	209 (100.0)	22 (100.0)	4938 (100.0)	5540 (100.0)	209 (100.0)	22 (100.0)	4938 (100.0)	5540 (100.0)	209 (100.0)	22 (100.0)	4938 (100.0)	5540 (100.0)	209 (100.0)	22 (100.0)	22 (100.0)
2010-2012 Total no. of patients = 13750	Death	113 (1.8)	91 (1.3)	44 (10.8)	0 (0)	153 (2.5)	115 (1.6)	45 (11.1)	0 (0)	218 (3.5)	156 (2.2)	47 (11.5)	0 (0)	284 (4.6)	206 (2.9)	49 (12.0)	0 (0)	
	Alive	6119 (98.2)	7020 (98.7)	363 (89.2)	0 (0)	6079 (97.5)	6996 (98.4)	362 (88.9)	0 (0)	6014 (96.5)	6955 (97.8)	360 (88.5)	0 (0)	5948 (95.4)	6905 (97.1)	358 (88.0)	0 (0)	
	Total	6232 (100.0)	7111 (100.0)	407 (100.0)	0 (0)	6232 (100.0)	7111 (100.0)	407 (100.0)	0 (0)	6232 (100.0)	7111 (100.0)	407 (100.0)	0 (0)	6232 (100.0)	7111 (100.0)	407 (100.0)	0 (0)	0 (0)
2007-2012 Total no. of patients = 24459	Death	189 (1.7)	129 (1.0)	52 (8.4)	1 (4.5)	268 (2.4)	175 (1.4)	55 (8.9)	1 (4.5)	413 (3.7)	243 (1.9)	58 (9.4)	1 (4.5)	556 (5.0)	329 (2.6)	62 (10.1)	1 (4.5)	
	Alive	10981 (98.3)	12522 (99.0)	564 (91.6)	21 (95.5)	10902 (97.6)	12476 (98.6)	561 (91.1)	21 (95.5)	10757 (96.3)	12408 (98.1)	558 (90.6)	21 (95.5)	10614 (95.0)	12322 (97.4)	554 (89.9)	21 (95.5)	
	Total	11170 (100.0)	12651 (100.0)	616 (100.0)	22 (100.0)	11170 (100.0)	12651 (100.0)	616 (100.0)	22 (100.0)	11170 (100.0)	12651 (100.0)	616 (100.0)	22 (100.0)	11170 (100.0)	12651 (100.0)	616 (100.0)	22 (100.0)	22 (100.0)

*The outcome data has been derived based on data matching with National Death Register data
 ** Including patients who died in hospital, *** Including patients who died in hospital & 30-day, ****Including patients who died in hospital, 30-day and 6-month



Table 5.6 Overall outcome of patients who underwent PCI, by pre-morbid hypertension, NCDVD-PCI Registry, 2007-2012

Year	*Outcome	Outcome at discharge				**30-day				***6-month				****1-year			
		Hypertensive	Non-hypertensive	Not known	Missing	Hypertensive	Non-hypertensive	Not known	Missing	Hypertensive	Non-hypertensive	Not known	Missing	Hypertensive	Non-hypertensive	Not known	Missing
		No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
2007-2009 Total no. of patients = 10709	Death	88 (1.1)	26 (1.0)	9 (5.8)	0 (0)	136 (1.7)	40 (1.5)	10 (6.5)	0 (0)	226 (2.9)	57 (2.1)	11 (7.1)	0 (0)	323 (4.1)	73 (2.7)	13 (8.4)	0 (0)
	Alive	7783 (98.9)	2638 (99.0)	146 (94.2)	19 (100.0)	7735 (98.3)	2624 (98.5)	145 (93.5)	19 (100.0)	7645 (97.1)	2607 (97.9)	144 (92.9)	19 (100.0)	7548 (95.9)	2591 (97.3)	142 (91.6)	19 (100.0)
	Total	7871 (100.0)	2664 (100.0)	155 (100.0)	19 (100.0)	7871 (100.0)	2664 (100.0)	155 (100.0)	19 (100.0)	7871 (100.0)	2664 (100.0)	155 (100.0)	19 (100.0)	7871 (100.0)	2664 (100.0)	155 (100.0)	19 (100.0)
2010-2012 Total no. of patients = 13750	Death	162 (1.6)	48 (1.4)	38 (10.7)	0 (0)	211 (2.1)	64 (1.9)	38 (10.7)	0 (0)	301 (3.0)	82 (2.4)	38 (10.7)	0 (0)	394 (3.9)	107 (3.2)	38 (10.7)	0 (0)
	Alive	9864 (98.4)	3322 (98.6)	316 (89.3)	0 (0)	9815 (97.9)	3306 (98.1)	316 (89.3)	0 (0)	9725 (97.0)	3288 (97.6)	316 (89.3)	0 (0)	9632 (96.1)	3263 (96.8)	316 (89.3)	0 (0)
	Total	10026 (100.0)	3370 (100.0)	354 (100.0)	0 (0)	10026 (100.0)	3370 (100.0)	354 (100.0)	0 (0)	10026 (100.0)	3370 (100.0)	354 (100.0)	0 (0)	10026 (100.0)	3370 (100.0)	354 (100.0)	0 (0)
2007-2012 Total no. of patients = 24459	Death	250 (1.4)	74 (1.2)	47 (9.2)	0 (0)	347 (1.9)	104 (1.7)	48 (9.4)	0 (0)	527 (2.9)	139 (2.3)	49 (9.6)	0 (0)	717 (4.0)	180 (3.0)	51 (10.0)	0 (0)
	Alive	17647 (98.6)	5960 (98.8)	462 (90.8)	19 (100.0)	17550 (98.1)	5930 (98.3)	461 (90.6)	19 (100.0)	17370 (97.1)	5895 (97.7)	460 (90.4)	19 (100.0)	17180 (96.0)	5854 (97.0)	458 (90.0)	19 (100.0)
	Total	17897 (100.0)	6034 (100.0)	509 (100.0)	19 (100.0)	17897 (100.0)	6034 (100.0)	509 (100.0)	19 (100.0)	17897 (100.0)	6034 (100.0)	509 (100.0)	19 (100.0)	17897 (100.0)	6034 (100.0)	509 (100.0)	19 (100.0)

*The outcome data has been derived based on data matching with National Death Register data
 ** Including patients who died in hospital, *** Including patients who died in hospital & 30-day, ****Including patients who died in hospital,30-day and 6-month

Table 5.7 Overall outcome of patients who underwent PCI, by pre-morbid dyslipidaemia, NCVI-PCI Registry, 2007-2012

Year	*Outcome	Outcome at discharge				**30-day				***6-month				****1-year			
		Dyslipidaemic No. (%)	Non- dyslipidaemic No. (%)	Not known No. (%)	Missing No. (%)	Dyslipidaemic No. (%)	Non- dyslipidaemic No. (%)	Not known No. (%)	Missing No. (%)	Dyslipidaemic No. (%)	Non- dyslipidaemic No. (%)	Not known No. (%)	Missing No. (%)	Dyslipidaemic No. (%)	Non- dyslipidaemic No. (%)	Not known No. (%)	Missing No. (%)
2007-2009 Total no. of patients = 10709	Death	62 (0.8)	39 (1.7)	20 (4.2)	2 (5.0)	105 (1.3)	51 (2.2)	28 (5.8)	2 (5.0)	175 (2.2)	80 (3.4)	37 (7.7)	2 (5.0)	262 (3.3)	101 (4.3)	44 (9.2)	2 (5.0)
	Alive	7777 (99.2)	2311 (98.3)	460 (95.8)	38 (95.0)	7734 (98.7)	2299 (97.8)	452 (94.2)	38 (95.0)	7664 (97.8)	2270 (96.6)	443 (92.3)	38 (95.0)	7577 (96.7)	2249 (95.7)	436 (90.8)	38 (95.0)
	Total	7839 (100.0)	2350 (100.0)	480 (100.0)	40 (100.0)	7839 (100.0)	2350 (100.0)	480 (100.0)	40 (100.0)	7839 (100.0)	2350 (100.0)	480 (100.0)	40 (100.0)	7839 (100.0)	2350 (100.0)	480 (100.0)	40 (100.0)
2010-2012 Total no. of patients = 13750	Death	131 (1.3)	57 (1.7)	60 (9.0)	0 (0)	182 (1.9)	68 (2.1)	63 (9.5)	0 (0)	268 (2.7)	88 (2.7)	65 (9.8)	0 (0)	358 (3.7)	115 (3.5)	66 (10.0)	0 (0)
	Alive	9648 (98.7)	3251 (98.3)	603 (91.0)	0 (0)	9597 (98.1)	3240 (97.9)	600 (91)	0 (0)	9511 (97.3)	3220 (97.3)	598 (90.2)	0 (0)	9421 (96.3)	3193 (96.5)	597 (90.0)	0 (0)
	Total	9779 (100.0)	3308 (100.0)	663 (100.0)	0 (0)	9779 (100.0)	3308 (100.0)	663 (100.0)	0 (0)	9779 (100.0)	3308 (100.0)	663 (100.0)	0 (0)	9779 (100.0)	3308 (100.0)	663 (100.0)	0 (0)
2007-2012 Total no. of patients = 24459	Death	193 (1.1)	96 (1.7)	80 (7.0)	2 (5.0)	287 (1.6)	119 (2.1)	91 (8.0)	2 (5.0)	443 (2.5)	168 (3.0)	102 (8.9)	2 (5.0)	620 (3.5)	216 (3.8)	110 (9.6)	2 (5.0)
	Alive	17425 (98.9)	5562 (98.3)	1063 (93.0)	38 (95.0)	17331 (98.4)	5539 (97.9)	1052 (92.0)	38 (95.0)	17175 (97.5)	5490 (97.0)	1041 (91.1)	38 (95.0)	16998 (96.5)	5442 (96.2)	1033 (90.4)	38 (95.0)
	Total	17618 (100.0)	5658 (100.0)	1143 (100.0)	40 (100.0)	17618 (100.0)	5658 (100.0)	1143 (100.0)	40 (100.0)	17618 (100.0)	5658 (100.0)	1143 (100.0)	40 (100.0)	17618 (100.0)	5658 (100.0)	1143 (100.0)	40 (100.0)

**The outcome data has been derived based on data matching with National Death Register data
 *** Including patients who died in hospital



Table 5.8 Overall outcome of patients who underwent PCI, by PCI status, NCVI-PCI Registry, 2007-2012

Year	*Outcome	Outcome at discharge				**30-day				***6-month				****1-year			
		Elective	Non-elective	Not available	Missing	Elective	Non-elective	Not available	Missing	Elective	Non-elective	Not available	Missing	Elective	Non-elective	Not available	Missing
		No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
2007-2009 Total no. of patients = 10709	Death	37 (0.4)	85 (8.7)	0 (0)	1 (8.3)	89 (0.9)	96 (9.8)	0 (0)	1 (8.3)	185 (1.9)	108 (11.0)	0 (0)	1 (8.3)	286 (3.0)	122 (12.4)	0 (0)	1 (8.3)
	Alive	9656 (99.6)	895 (91.3)	24 (100.0)	11 (91.7)	9604 (99.1)	884 (90.2)	24 (100.0)	11 (91.7)	9508 (98.1)	872 (89.0)	24 (100.0)	11 (91.7)	9407 (97.0)	858 (87.6)	24 (100.0)	11 (91.7)
	Total	9693 (100.0)	980 (100.0)	24 (100.0)	12 (100.0)	9693 (100.0)	980 (100.0)	24 (100.0)	12 (100.0)	9693 (100.0)	980 (100.0)	24 (100.0)	12 (100.0)	9693 (100.0)	980 (100.0)	24 (100.0)	12 (100.0)
2010-2012 Total no. of patients = 13750	Death	59 (0.5)	188 (8.8)	0 (0)	1 (50.0)	112 (1.0)	200 (9.4)	0 (0)	1 (50.0)	206 (1.8)	214 (10.0)	0 (0)	1 (50.0)	309 (2.7)	229 (10.7)	0 (0)	1 (50.0)
	Alive	11557 (99.5)	1944 (91.2)	0 (0)	1 (50.0)	11504 (99.0)	1932 (90.6)	0 (0)	1 (50.0)	11410 (98.2)	1918 (90.0)	0 (0)	1 (50.0)	11307 (97.3)	1903 (89.3)	0 (0)	1 (50.0)
	Total	11616 (100.0)	2132 (100.0)	0 (0)	2 (100.0)	11616 (100.0)	2132 (100.0)	0 (0)	2 (100.0)	11616 (100.0)	2132 (100.0)	0 (0)	2 (100.0)	11616 (100.0)	2132 (100.0)	0 (0)	2 (100.0)
2007-2012 Total no. of patients = 24459	Death	96 (0.5)	273 (8.8)	0 (0)	2 (14.3)	201 (0.9)	296 (9.5)	0 (0)	2 (14.3)	391 (1.8)	322 (10.3)	0 (0)	2 (14.3)	595 (2.8)	351 (11.3)	0 (0)	2 (14.3)
	Alive	21213 (99.5)	2839 (91.2)	24 (100.0)	12 (85.7)	21108 (99.1)	2816 (90.5)	24 (100.0)	12 (85.7)	20918 (98.2)	2790 (89.7)	24 (100.0)	12 (85.7)	20714 (97.2)	2761 (88.7)	24 (100.0)	12 (85.7)
	Total	21309 (100.0)	3112 (100.0)	24 (100.0)	14 (100.0)	21309 (100.0)	3112 (100.0)	24 (100.0)	14 (100.0)	21309 (100.0)	3112 (100.0)	24 (100.0)	14 (100.0)	21309 (100.0)	3112 (100.0)	24 (100.0)	14 (100.0)

*The outcome data has been derived based on data matching with National Death Register data
 ** Including patients who died in hospital

Table 5.9 Overall outcome of patients who underwent PCI, by acute coronary syndrome, NCDVD-PCI Registry, 2007-2012

Year	*Outcome	Outcome at discharge				**30-day				***6-month				****1-year			
		STEMI	NSTEMI	UA	Not available/ Missing	STEMI	NSTEMI	UA	Not available/ Missing	STEMI	NSTEMI	UA	Not available/ Missing	STEMI	NSTEMI	UA	Not available/ Missing
		No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
2007-2009 Total no. of ACS patients = 4629	Death	75 (3.2)	21 (1.2)	4 (0.9)	2 (5.7)	92 (3.9)	34 (1.9)	5 (1.1)	2 (5.7)	115 (4.8)	55 (3.1)	11 (2.4)	2 (5.7)	142 (6.0)	74 (4.2)	19 (4.2)	2 (5.7)
	Alive	2304 (96.8)	1739 (98.8)	451 (99.1)	33 (94.3)	2287 (96.1)	1726 (98.1)	450 (98.9)	33 (94.3)	2264 (95.2)	1705 (96.9)	444 (97.6)	33 (94.3)	2237 (94.0)	1686 (95.8)	436 (95.8)	33 (94.3)
	Total	2379 (100.0)	1760 (100.0)	455 (100.0)	35 (100.0)	2379 (100.0)	1760 (100.0)	455 (100.0)	35 (100.0)	2379 (100.0)	1760 (100.0)	455 (100.0)	35 (100.0)	2379 (100.0)	1760 (100.0)	455 (100.0)	35 (100.0)
2010-2012 Total no. of ACS patients = 4787	Death	168 (5.9)	28 (2.2)	8 (1.3)	4 (8.3)	185 (6.5)	36 (2.8)	11 (1.9)	4 (8.3)	206 (7.2)	55 (4.3)	15 (2.5)	4 (8.3)	231 (8.1)	74 (5.8)	18 (3.0)	4 (8.3)
	Alive	2700 (94.1)	1250 (97.8)	585 (98.7)	44 (91.7)	2683 (93.5)	1242 (97.2)	582 (98.1)	44 (91.7)	2662 (92.8)	1223 (95.7)	578 (97.5)	44 (91.7)	2637 (91.9)	1204 (94.2)	575 (97.0)	44 (91.7)
	Total	2868 (100.0)	1278 (100.0)	593 (100.0)	48 (100.0)	2868 (100.0)	1278 (100.0)	593 (100.0)	48 (100.0)	2868 (100.0)	1278 (100.0)	593 (100.0)	48 (100.0)	2868 (100.0)	1278 (100.0)	593 (100.0)	48 (100.0)
2007-2012 Total no. of ACS patients = 9416	Death	243 (4.6)	49 (1.6)	12 (1.1)	6 (7.2)	277 (5.3)	70 (2.3)	16 (1.5)	6 (7.2)	321 (6.1)	110 (3.6)	26 (2.5)	6 (7.2)	373 (7.1)	148 (4.9)	37 (3.5)	6 (7.2)
	Alive	5004 (95.4)	2989 (98.4)	1036 (98.9)	77 (95.8)	4970 (94.7)	2968 (97.7)	1032 (98.5)	77 (95.8)	4926 (93.9)	2928 (96.4)	1022 (97.5)	77 (95.8)	4874 (92.9)	2890 (95.1)	1011 (96.5)	77 (95.8)
	Total	5247 (100.0)	3038 (100.0)	1048 (100.0)	83 (100.0)	5247 (100.0)	3038 (100.0)	1048 (100.0)	83 (100.0)	5247 (100.0)	3038 (100.0)	1048 (100.0)	83 (100.0)	5247 (100.0)	3038 (100.0)	1048 (100.0)	83 (100.0)

*The outcome data has been derived based on data matching with National Death Register data

** Including patients who died in hospital



Table 5.10 Medication for patients who underwent PCI, NCVD-PCI Registry, 2007-2012

Year	#*Medication	Outcome at discharge		30-day		6-month		1-year	
		No.	%	No.	%	No.	%	No.	%
2007-2009 Total no. of alive patients = 10575	Aspirin	9867	93.3	6823	90.0	5383	84.0	4540	78.2
	Clopidogrel	9976	94.3	6355	83.8	4555	71.1	3402	58.6
	Ticlopidine	527	5.0	395	5.2	383	6.0	322	5.5
	**Dual antiplatelet	9622	91.0	6171	81.4	4308	67.2	3096	53.3
	Statin	9673	91.5	1671	22.0	5474	85.4	4735	81.5
	Beta blocker	7504	71.0	1214	16.0	4090	63.8	3537	60.9
	Ace inhibitor	5714	54.0	936	12.3	3025	47.2	2508	43.2
	ARB	1469	13.9	322	4.2	1153	18.0	1130	19.5
	Warfarin	111	1.0	8	0.1	45	0.7	41	0.7
	Others	7307	69.1	6493	85.6	4696	73.3	4121	70.9
2010-2012 Total no. of alive patients = 13500	Aspirin	12374	91.7	6131	82.9	4766	79.0	3817	75.8
	Clopidogrel	12319	91.3	5908	79.9	4172	69.1	2830	56.2
	Ticlopidine	330	2.4	197	2.7	173	2.9	144	2.9
	**Dual antiplatelet	11934	88.4	5728	77.5	4016	66.5	2645	52.5
	Statin	11785	87.3	5339	72.2	4704	77.9	3869	76.8
	Beta blocker	9014	66.8	3879	52.5	3552	58.8	2916	57.9
	Ace inhibitor	6612	49.0	2807	38.0	2344	38.8	1887	37.5
	ARB	1543	11.4	884	12.0	948	15.7	858	17.0
	Warfarin	155	1.1	55	0.7	44	0.7	26	0.5
	Others	9194	68.1	4886	66.1	3653	60.5	3150	62.5
2007-2012 Total no. of alive patients = 24075	Aspirin	22241	92.4	12954	86.5	10149	81.5	8357	77.0
	Clopidogrel	22295	92.6	12263	81.9	8727	70.1	6232	57.5
	Ticlopidine	857	3.6	592	4.0	556	4.5	466	4.3
	**Dual antiplatelet	21556	89.5	11899	79.4	8324	66.9	5741	52.9
	Statin	21458	89.1	7010	46.8	10178	81.8	8604	79.3
	Beta blocker	16518	68.6	5093	34.0	7642	61.4	6453	59.5
	Ace inhibitor	12326	51.2	3743	25.0	5369	43.1	4395	40.5
	ARB	3012	12.5	1206	8.1	2101	16.9	1988	18.3
	Warfarin	266	1.1	63	0.4	89	0.7	67	0.6
	Others	16501	68.5	11379	76.0	8349	67.1	7271	67.0

*Available for those who are alive

**Dual antiplatelet is combination of Aspirin and Clopidogrel or Ticlopidine

Patients are allowed to have more than one type of category

Table 5.11 Cause of death of patients who underwent PCI, NCVI-PCI Registry, 2007-2012

Year	*Death cause	Outcome at discharge		**30-day		***6-month		****1-year	
		No.	%	No.	%	No.	%	No.	%
2007-2009 Total no. of patients = 123	Cardiac	99	80.4	124	66.7	152	51.7	180	44.0
	Renal	2	1.7	2	1.1	2	0.7	2	0.5
	Other	6	4.8	7	3.8	10	3.4	16	3.9
	Infection	3	2.5	3	1.6	3	1.0	3	0.7
	Neurological	2	1.7	2	1.1	2	0.7	2	0.5
	Vascular	1	0.8	1	0.5	1	0.3	1	0.2
	Pulmonary	0	0	0	0	0	0	0	0
	Non cardiac	0	0	6	3.2	12	4.1	15	3.7
	Not available	3	2.5	8	4.3	45	15.3	89	21.8
	Missing	7	5.6	33	17.7	67	22.8	101	24.7
	Total	123	100.0	186	100.0	294	100.0	409	100.0
2010-2012 Total no. of patients = 248	Cardiac	191	77.0	206	65.8	226	53.7	243	45.1
	Renal	0	0	0	0	0	0	0	0
	Other	9	3.7	11	3.5	11	2.6	15	2.8
	Infection	6	2.4	6	1.9	6	1.4	6	1.1
	Neurological	1	0.4	1	0.3	1	0.2	1	0.2
	Vascular	0	0	0	0	0	0	0	0
	Pulmonary	2	0.8	2	0.6	2	0.5	2	0.4
	Non cardiac	0	0	2	0.6	6	1.4	15	2.8
	Not available	9	3.7	16	5.1	38	9.0	51	9.5
	Missing	30	12.0	69	22.0	131	31.1	206	38.2
	Total	248	100.0	313	100.0	421	100.0	539	100.0
2007-2012 Total no. of patients = 371	Cardiac	290	78.2	330	66.1	378	52.9	423	44.6
	Renal	2	0.6	2	0.4	2	0.3	2	0.2
	Other	15	4.0	18	3.6	21	2.9	31	3.3
	Infection	9	2.4	9	1.8	9	1.3	9	0.9
	Neurological	3	0.8	3	0.6	3	0.4	3	0.3
	Vascular	1	0.2	1	0.2	1	0.1	1	0.1
	Pulmonary	2	0.6	2	0.4	2	0.3	2	0.2
	Non cardiac	0	0	8	1.6	18	2.5	30	3.2
	Not available	12	3.2	24	4.8	83	11.6	140	14.8
	Missing	37	10.0	102	20.4	198	27.7	307	32.4
	Total	371	100.0	499	100.0	715	100.0	948	100.0

*The outcome data has been derived based on data matching with National Death Register data

** Including patients who died in hospital

+ Patients may have more than one condition that caused death



Table 5.12 Location of death of patients who underwent PCI, NCVD-PCI Registry, 2007-2009

Year	2007-2009 Total no. of patients = 123		2010-2012 Total no. of patients = 248		2007-2012 Total no. of patients = 371	
	No.	%	No.	%	No.	%
In lab	13	10.6	21	8.5	34	9.2
Out of lab	100	81.3	187	75.4	287	77.4
Not available	3	2.4	7	2.8	10	2.7
Missing	7	5.7	33	13.3	40	10.7
Total	123	100.0	248	100.0	371	100.0

Table 5.13 Outcome at discharge of patients who developed cardiogenic shock peri-procedure, NCVD-PCI Registry, 2007-2012

Year	*Outcome	Cardiogenic shock peri-procedure					
		Yes		No		Missing	
		No.	%	No.	%	No.	%
2007-2009 Total no. of patients = 10709	Death	40	64.5	82	0.8	1	1.3
	Alive	22	35.5	10487	99.2	77	98.7
	Total	62	100.0	10569	100.0	78	100.0
2010-2012 Total no. of patients = 13750	Death	35	76.1	213	1.6	0	0
	Alive	11	23.9	13480	98.4	11	100.0
	Total	46	100.0	13693	100.0	11	100.0
2007-2012 Total no. of patients = 24459	Death	75	69.4	295	1.2	1	1.1
	Alive	33	30.6	23967	98.8	88	98.9
	Total	108	100.0	24262	100.0	89	100.0

*The outcome data has been derived based on data matching with National Death Register data

Table 5.14 Outcome at discharge, by post PCI TIMI flow, NCVD-PCI Registry, 2007-2012

Year	*Outcome	Post PCI TIMI flow											
		0		1		2		3		Not available		Missing	
		No.	(%)	No.	%	No.	%	No.	%	No.	%	No.	%
2007-2009 Total no. of lesions = 15848	Death	13	4.8	5	6.3	14	8.0	126	0.9	1	2.4	5	0.9
	Alive	257	95.2	75	93.7	161	92.0	14617	99.1	40	97.6	534	99.1
	Total	270	100.0	80	100.0	175	100.0	14743	100.0	41	100.0	539	100.0
2010-2012 Total no. of lesions = 19025	Death	12	3.1	11	22.4	23	13.1	215	1.3	7	2.2	26	1.4
	Alive	374	96.9	38	77.6	153	86.9	16092	98.7	306	97.8	1768	98.6
	Total	386	100.0	49	100.0	176	100.0	16307	100.0	313	100.0	1794	100.0
2007-2012 Total no. of lesions = 34873	Death	25	3.8	16	12.4	37	10.5	341	1.1	8	2.3	31	1.3
	Alive	631	96.2	113	87.6	314	89.5	30709	98.9	346	97.7	2302	98.7
	Total	656	100.0	129	100.0	351	100.0	31050	100.0	354	100.0	2333	100.0

*The outcome data has been derived based on data matching with National Death Register data



Table 5.15 Outcome at discharge, by contrast volume used, NCVD-PCI Registry, 2007-2012

Contrast volume, ml	2007-2009 Total no. of patients = 10709			2010-2012 Total no. of patients = 13750			ALL Total no. of patients = 24459		
	*Death	Alive	Total	*Death	Alive	Total	*Death	Alive	Total
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
≥300	8 (1.2)	644 (98.8)	652 (100.0)	30 (3.1)	926 (96.9)	956 (100.0)	38 (2.4)	1570 (97.6)	1608 (100.0)
<300	99 (1.1)	8717 (98.9)	8816 (100.0)	187 (1.6)	11242 (98.4)	11429 (100.0)	286 (1.4)	19959 (98.6)	20245 (100.0)
Not available	15 (1.3)	1117 (98.7)	1132 (100.0)	17 (2.8)	585 (97.2)	602 (100.0)	32 (1.8)	1702 (98.2)	1734 (100.0)
Missing	1 (0.9)	108 (99.1)	109 (100.0)	14 (1.8)	749 (98.2)	763 (100.0)	15 (1.7)	857 (98.3)	872 (100.0)

*The outcome data has been derived based on data matching with National Death Register data

+Alive includes those transferred to another centres

Table 5.16 Summary of 30-day readmission status of patients who underwent PCI, NCVD-PCI Registry, 2007-2012 (N = total no. of procedures for 30-day follow-up)

	2007-2009 Total no. of procedures = 8318		2010-2012 Total no. of procedures = 8011		2007-2012 Total no. of procedures = 16329	
	No.	%	No.	%	No.	%
Readmission						
Yes	480	5.8	430	5.4	910	5.6
No	7789	93.6	7581	94.6	15370	94.1
Missing	49	0.6	0	0	49	0.3
Readmission reason, No. (%)						
CHF	7	1.5	10	2.3	17	1.9
AMI	7	1.5	9	2.1	16	1.8
Recurrent angina	63	13.1	44	10.2	107	11.8
Arrhythmia	1	0.2	0	0	1	0.1
PCI-planned	251	52.3	254	59.1	505	55.5
PCI-unplanned	14	2.9	1	0.2	15	1.6
CABG	5	1.0	7	1.6	12	1.3
Others	95	19.8	86	20.0	181	19.8
Not available	10	2.1	8	1.9	18	2.0
Missing	27	5.6	11	2.6	38	4.2
Total	480	100.0	430	100.0	910	100.0

Table 5.17 Procedural complications and clinical outcomes, according to PCI status, NCVI-PCI Registry, 2007-2012

*Complications and clinical outcomes	2007-2009 Total no. of patients = 10709						2010-2012 Total no. of patients = 13750						2007-2012 Total no. of patients = 24459											
	Effective		NSTEM I/VA		AMI		Missing		Effective		NSTEM I/VA		AMI		Missing		Effective		NSTEM I/VA		AMI		Missing	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Periprocedural MI	33	0.3	4	0.8	9	1.8	0	0	37	0.3	5	0.6	9	0.7	1	50.0	70	0.3	9	0.7	18	1.0	1	7.1
Emergency reintervention/PCI	16	0.2	4	0.8	5	1.0	0	0	18	0.2	5	0.6	12	0.9	1	50.0	34	0.2	9	0.7	17	0.9	1	7.1
Stent thrombosis	9	0.1	1	0.2	2	0.4	0	0	4	0.0	0	0	3	0.2	0	0	13	0.1	1	0.1	5	0.3	0	0
Dissection	8	0.1	0	0	0	0	0	3	0.0	2	0.2	1	0.1	0	0	0	11	0.1	2	0.2	1	0.1	0	0
Perforation	1	0.0	0	0	0	0	0	2	0.0	1	0.1	1	0.1	0	0	0	3	0.0	1	0.1	1	0.1	0	0
Bail-out CABG	4	0.0	0	0	2	0.4	0	0	1	0.0	0	0	1	0.1	0	0	5	0.0	0	0	3	0.2	0	0
Cardiogenic shock	22	0.2	7	1.5	33	6.5	0	0	15	0.1	8	1.0	23	1.7	0	0	37	0.2	15	1.2	56	3.1	0	0
Arrhythmia	38	0.4	6	1.3	17	3.4	1	8.3	28	0.2	11	1.4	40	3.0	0	0	66	0.3	17	1.3	57	3.1	1	7.1
TIA/stroke	4	0.0	2	0.4	0	0	0	0	2	0.0	0	0	2	0.2	0	0	6	0.0	2	0.2	2	0.1	0	0
Tamponade	5	0.1	0	0	1	0.2	0	0	7	0.1	2	0.2	1	0.1	0	0	12	0.1	2	0.2	2	0.1	0	0
Contrast reaction	6	0.1	0	0	3	0.6	0	0	5	0.0	0	0	1	0.1	0	0	11	0.1	0	0	4	0.2	0	0
New onset/worsen heart failure	6	0.1	1	0.2	5	1.0	0	0	4	0.0	1	0.1	3	0.2	0	0	10	0.0	2	0.2	8	0.4	0	0
New renal impairment	4	0.0	2	0.4	11	2.2	0	0	5	0.0	2	0.2	23	1.7	0	0	9	0.0	4	0.3	34	1.9	0	0
Bleeding	47	0.5	13	2.7	12	2.4	0	0	37	0.3	6	0.7	12	0.9	1	50.0	84	0.4	19	1.5	24	1.3	1	7.1
Access site occlusion	8	0.1	1	0.2	0	0	0	0	0	0	2	0.2	0	0	0	0	8	0.0	3	0.2	0	0	0	0
Loss of distal pulse	2	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.0	0	0	0	0	0	0
Dissection	23	0.2	0	0	4	0.8	0	0	6	0.1	0	0	1	0.1	0	0	29	0.1	0	0	5	0.3	0	0
Pseudoaneurysm	8	0.1	0	0	0	0	0	8	0.1	1	0.1	0	0	0	0	0	16	0.1	1	0.1	0	0	0	0

**Table 5.18 Heart rate at presentation versus outcome, NCVD-PCI Registry, 2007-2012**

Heart rate at presentation (beats/minute)	2007-2009 Total no. of patients = 10709		2010-2012 Total no. of patients = 13750		2007-2012 Total no. of patients = 24459	
	*Death	Alive	*Death	Alive	*Death	Alive
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
<90	64 (52.0)	8621 (81.5)	89 (35.8)	10846 (80.4)	153 (41.2)	19467 (80.8)
≥90	53 (43.1)	1156 (10.9)	112 (45.2)	1301 (9.6)	165 (44.5)	2457 (10.2)
Missing	6 (4.9)	809 (7.6)	47 (19.0)	1355 (10.0)	53 (14.3)	2164 (9.0)
Total	123 (100.0)	10586 (100.0)	248 (100.0)	13502 (100.0)	371 (100.0)	24088 (100.0)

*Alive include those patients transferred to another centres

Table 5.19 Heart rate at presentation versus length of stay, NCVD-PCI Registry, 2007-2012

Length of stay	2007-2009 Total no. of patients = 10586			2010-2012 Total no. of patients = 13502			2007-2012 Total no. of patients = 24088		
	<90	90-119	Missing	<90	90-119	Missing	<90	90-119	Missing
N	8470	1139	786	10515	1256	1315	18985	2395	2101
Mean(SD)	4.6 (21.0)	7.2 (36.3)	5.4 (29.5)	4.3 (10.7)	6.5 (18.4)	6.5 (29.4)	4.4 (16.1)	6.8 (28.4)	6.1 (29.5)
Median, (min,max)	3.0 (1.0, 1098.0)	3.0 (1.0, 734.0)	3.0 (1.0, 734.0)	3.0 (1.0, 369.0)	3.0 (1.0, 370.0)	3.0 (1.0, 736.0)	3.0 (1.0, 1098.0)	3.0 (1.0, 734.0)	3.0 (1.0, 736.0)
Negative/zero, No. (%)	34 (0.4)	4 (0.3)	1 (0.1)	234 (2.2)	26 (2.0)	11 (0.8)	268 (1.4)	30 (1.2)	12 (0.6)
Missing, No. (%)	117 (1.4)	13 (1.1)	22 (2.7)	97 (0.9)	19 (1.5)	29 (2.1)	214 (1.1)	32 (1.3)	51 (2.4)

*Alive include those patients transferred to another centres

Table 5.20 Prognostic factors for in-hospital mortality among patients who underwent PCI, NCVD-PCI Registry, 2007-2012

Factor	Total no. of patients = 23843				*p-value
	N	Hazard ratio	95% CI		
Age	23843	1.12	1.03	1.22	0.007
Age group					
20-<30 (ref)	87	1.00			
30-<40	933	5098506.00	53235.45	488000000.00	<0.001
40-<50	4539	6659671.00	223248.30	199000000.00	<0.001
50-<60	8565	1927293.00	137371.40	27000000.00	<0.001
60-<70	6819	901125.90	113036.90	7183744.00	<0.001
70-<80	2675	499425.80	108635.70	2295986.00	<0.001
≥80	225	359363.10	.	.	.
PCI status					
Elective (ref)	20801	1.00			
NSTEMI/UA	1227	2.13	0.88	5.18	0.096
AMI	1780	3.98	2.02	7.85	<0.001
**Hypertension					
No (ref)	6383	1.00			
Yes	17443	0.59	0.35	0.99	0.047
Killip class					
I (ref)	6234	1.00			
II	2936	2.36	1.13	4.93	0.022
III	200	2.41	0.87	6.67	0.090
IV	393	3.63	1.58	8.32	0.002
Left ventricular ejection fraction					
<30	386	2.77	1.11	6.93	0.029
30-50	3549	1.37	0.61	3.09	0.448
>50 (ref)	4649	1.00			
NYHA dyspnoea ≥3 or congestive heart failure					
No (ref)	22265	1.00			
Yes	1557	2.01	1.18	3.43	0.010
Cardiogenic shock					
No (ref)	23683	1.00			
Yes	105	4.80	2.40	9.63	<0.001
IABP					
No (ref)	22902	1.00			
Yes	604	2.53	1.27	5.05	0.009
Serum creatinine >200µmol/L					
No (ref)	20590	1.00			
Yes	1116	1.88	1.06	3.34	0.032

* using Cox regression with backward stepwise variable selection

** "No" category in these variables included "Not known" category



Table 5.21 Prognostic factors for 30-days mortality among patients who underwent PCI, NCVD-PCI Registry, 2007-2012 (Multivariable analysis)

Factor	Total no. of patients = 15169				
	N	Hazard ratio	95% CI		*p-value
Gender					
Male (ref)	12496	1.00			
Female	2673	2.36	1.35	4.12	0.003
PCI status					
Elective (ref)	13672	1.00			
NSTEMI/UA	675	1.61	0.57	4.54	0.370
AMI	803	1.11	0.27	4.64	0.885
Left ventricular ejection fraction					
<30	255	5.26	2.34	11.81	<0.001
30-50	2535	1.50	0.85	2.64	0.157
>50 (ref)	3420	1.00			
Serum creatinine >200µmol/L					
No (ref)	13303	1.00			
Yes	678	3.19	1.65	6.18	0.001

* using Cox regression with backward stepwise variable selection

** "No" category in these variables included "Not known" category