The Need for a National Registry
Some Recent Findings

Philip Urban, on behalf of the AMIS Plus Investigators

Bern - March 5, 2009

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S Switzerland

What are we confronted with

- ✓ A duty to deliver optimal care
- ✓ The growing impact of EBM
- ✓ A proliferation of (useful!) guidelines
- ✓ Increasing cost constraints
- ✓ A moving target, with rapid evolution in:
  - diagnostic tools/criteria
  - pharmacology
  - interventional techniques

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The AMIS registry (1)

- **A**cute **M**yocardial **I**nfarction in **S**witzerland
- National prospective registry of ACS
- 29’462 patients included from 1997 to 2008
- 76 hospitals
- Internet or paper data entry
- 180 parameters until hospital discharge
- Data Center at the Institute of Social and Preventive Medicine, University of Zurich

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What AMIS can offer

- ✓ Ongoing assessment of the “real world”
- ✓ A definition of the nature and magnitude of ACS in Switzerland
- ✓ Compliance with guidelines
- ✓ Trends over time
- ✓ Benchmarking for participants
- ✓ Define specificity of individual institutions
- ✓ Potential for updating/modifying guidelines

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How well are we translating guidelines into clinical practice?

- Reperfusion therapy for STEMI
- Discharge medication after ACS

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Acute reperfusion

- 29’462 patients admitted for ACS between 1997 and 2008
- 17’117 (58.3 %) with STEMI or LBBB at admission
- Follow-up until discharge

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Demographics (1)

	No reperfusion	Lysis	PCI
n	5503 (32.1 %)	3486 (20.4 %)	8128 (47.5%)
Age	70.8 ± 13.5	62.4 ± 12.3	61.6 ± 12.4
Female gender	36%	23%	23%
Prior CAD	44%	28%	27%
Diabetes	25%	15%	16%
Hypertension	61%	45%	52%
Current smoking	31%	46%	47%
Hyperlipidemia	50%	55%	55%

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Demographics (2)

	No reperfusion	Lysis	PCI
Killip class I	63 %	77 %	85 %
Killip class II	25 %	17%	10 %
Killip class III	9 %	3 %	2 %
Killip class IV	3 %	3 %	3 %
Median delay (min) symptoms - admission	414	150	185
LBBB	20 %	3 %	4 %
Pre-admission CPR	5 %	4 %	4 %
Pre-admission Defibrillation	3 %	4 %	6 %

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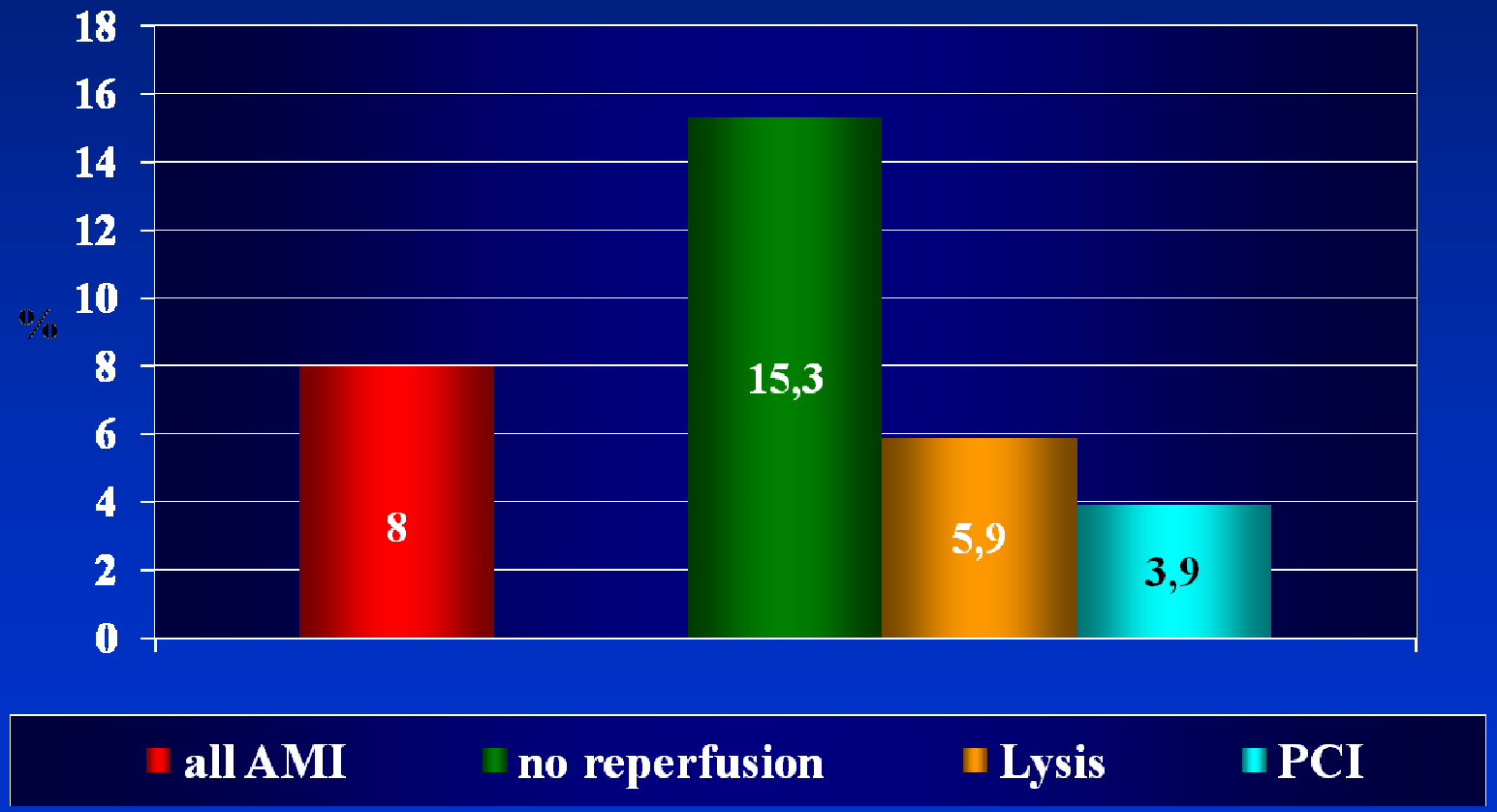
Hospital mortality



Reperfusion for AMI 1997-2008

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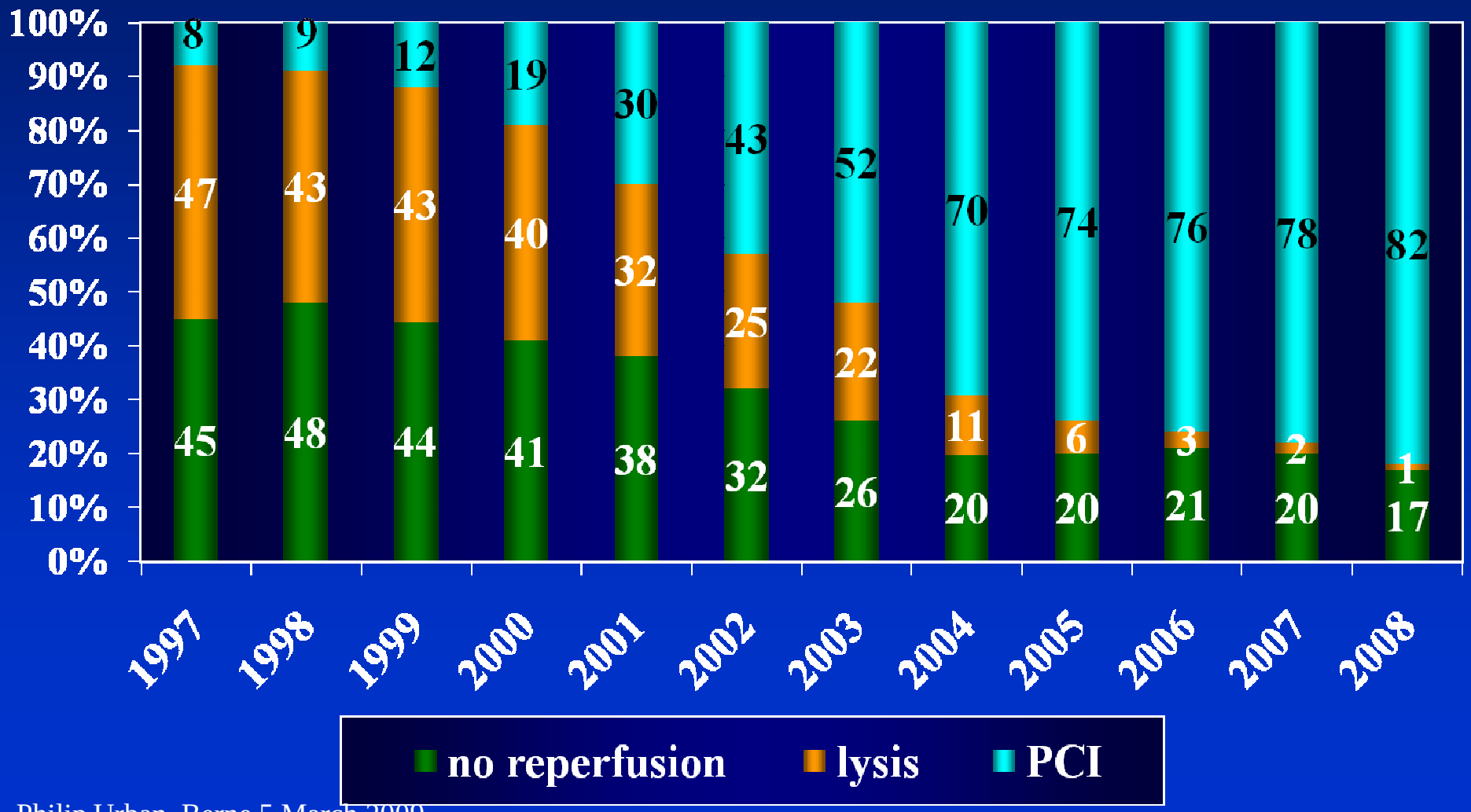

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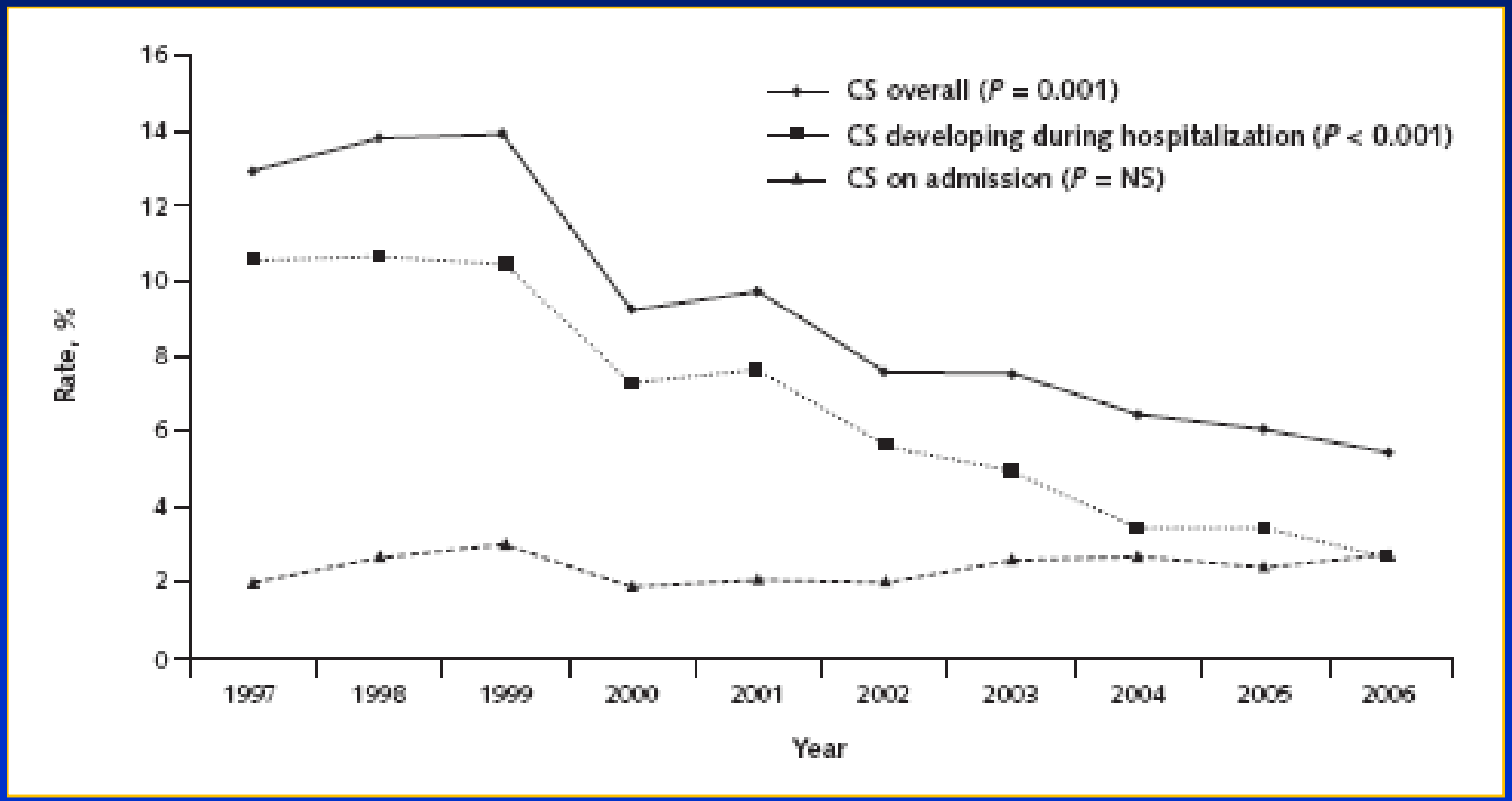
Temporal trends for cardiogenic shock



Ann Int Med 2008; 149: 618-26

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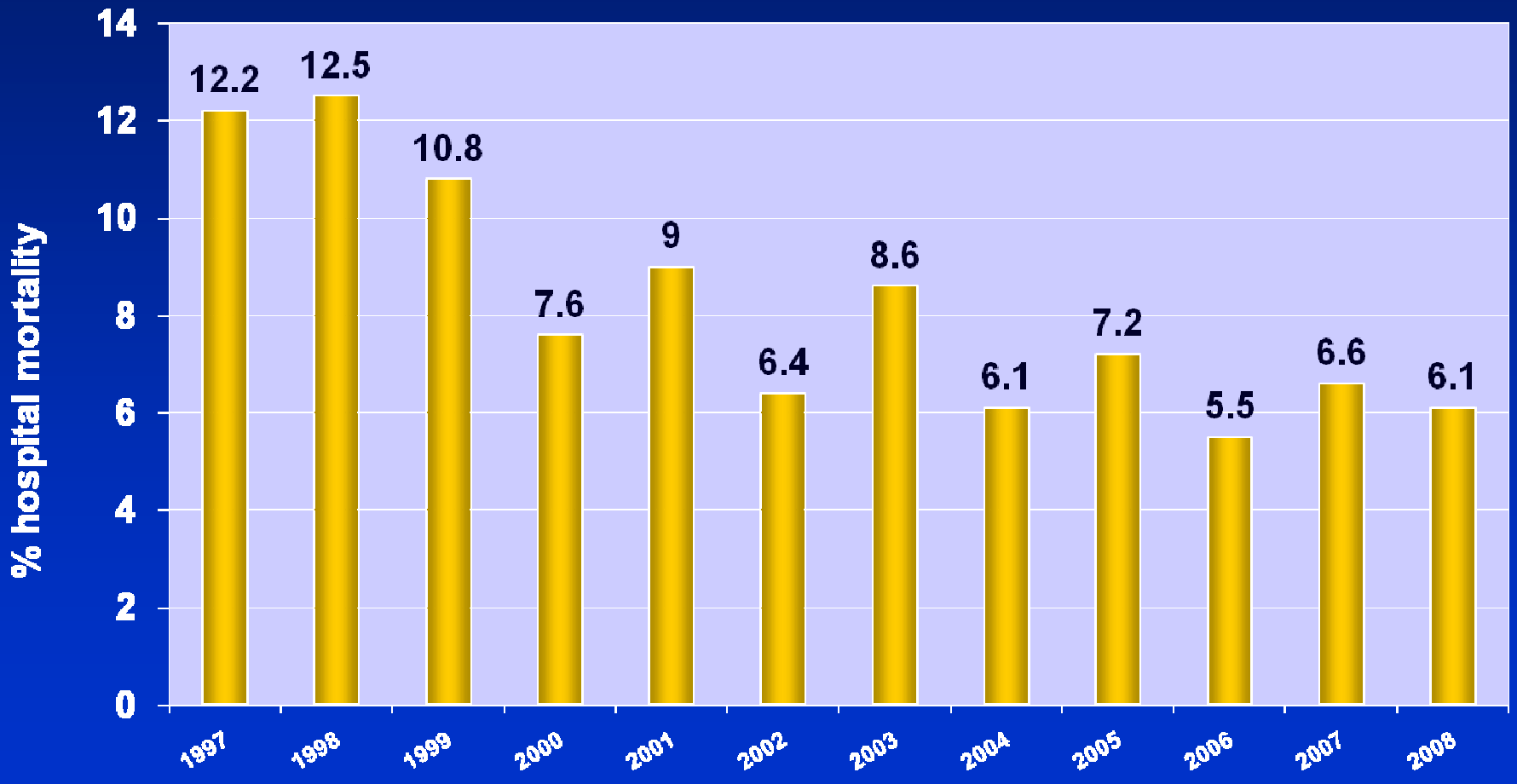
Crude STEMI mortality 1997-2008



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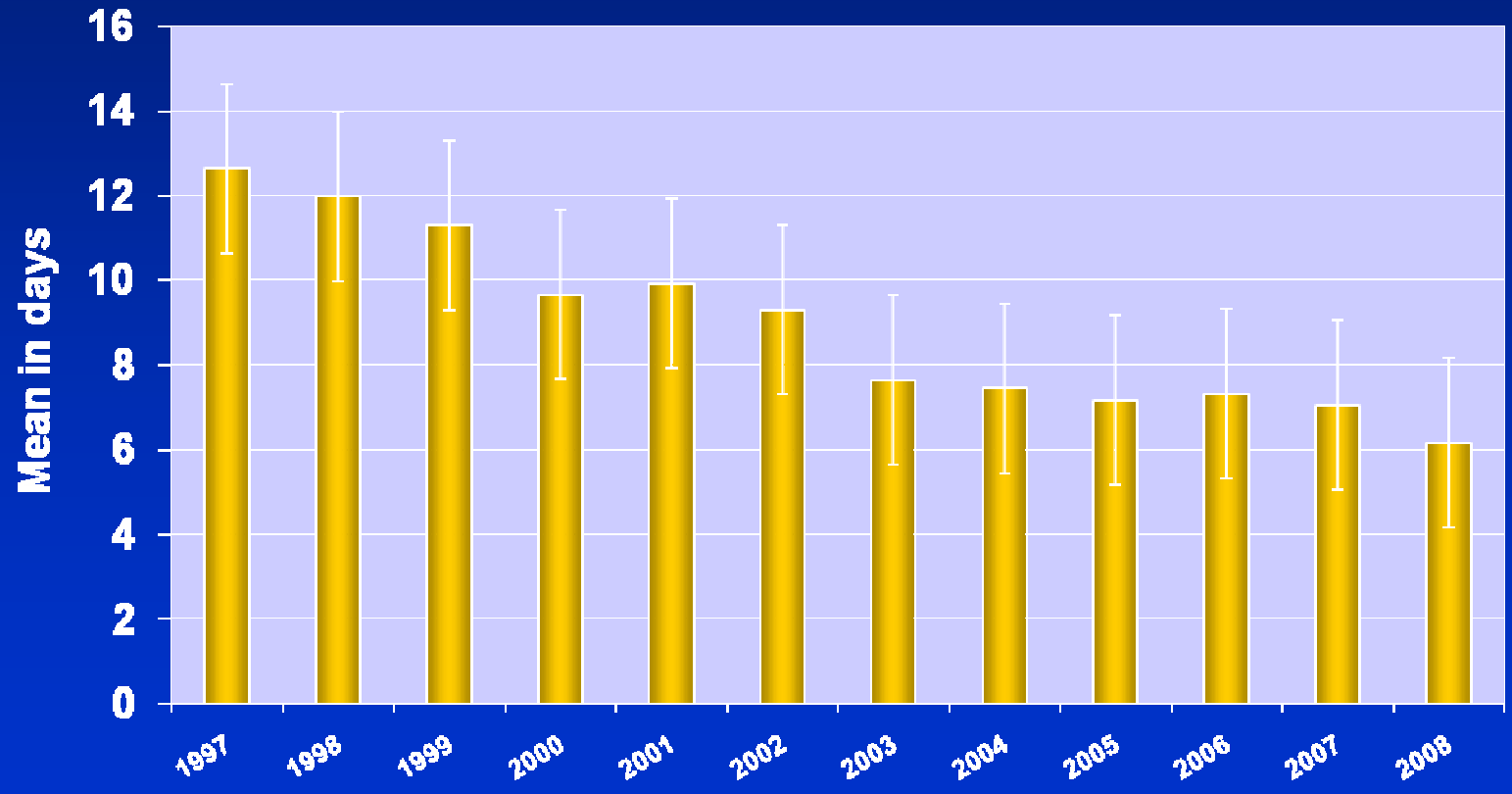
Duration of hospital stay for STEMI 1997-2009



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Reperfusion for AMI in Swiss hospitals

- ✓ PCI has currently become by far the most frequently used mode of therapy
- ✓ The number of patients not given reperfusion therapy is now < 20%
- ✓ These changes are associated with a decrease in crude hospital mortality and with a markedly shorter hospital stay
- ✓ Comorbid conditions have a major impact on outcome and on the implementation of EBM-based guidelines

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How well are we translating guidelines into clinical practice?

- Reperfusion therapy for STEMI
- Discharge medication after ACS
  - antithrombotics
  - statins
  - betablockers
  - ACE inhibitors and ATII blockers

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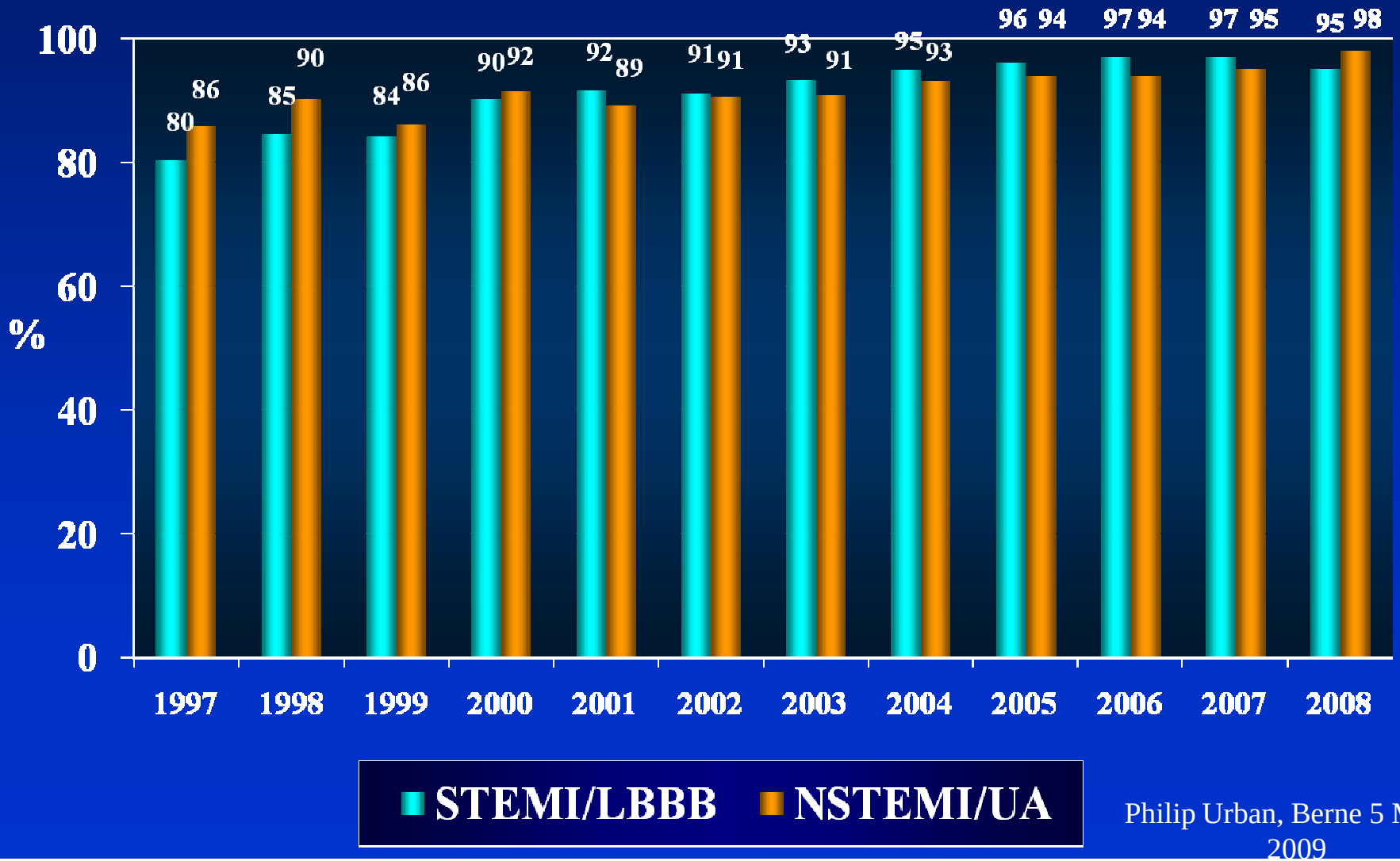
Aspirin treatment at discharge



Oral antiocoagulants at discharge

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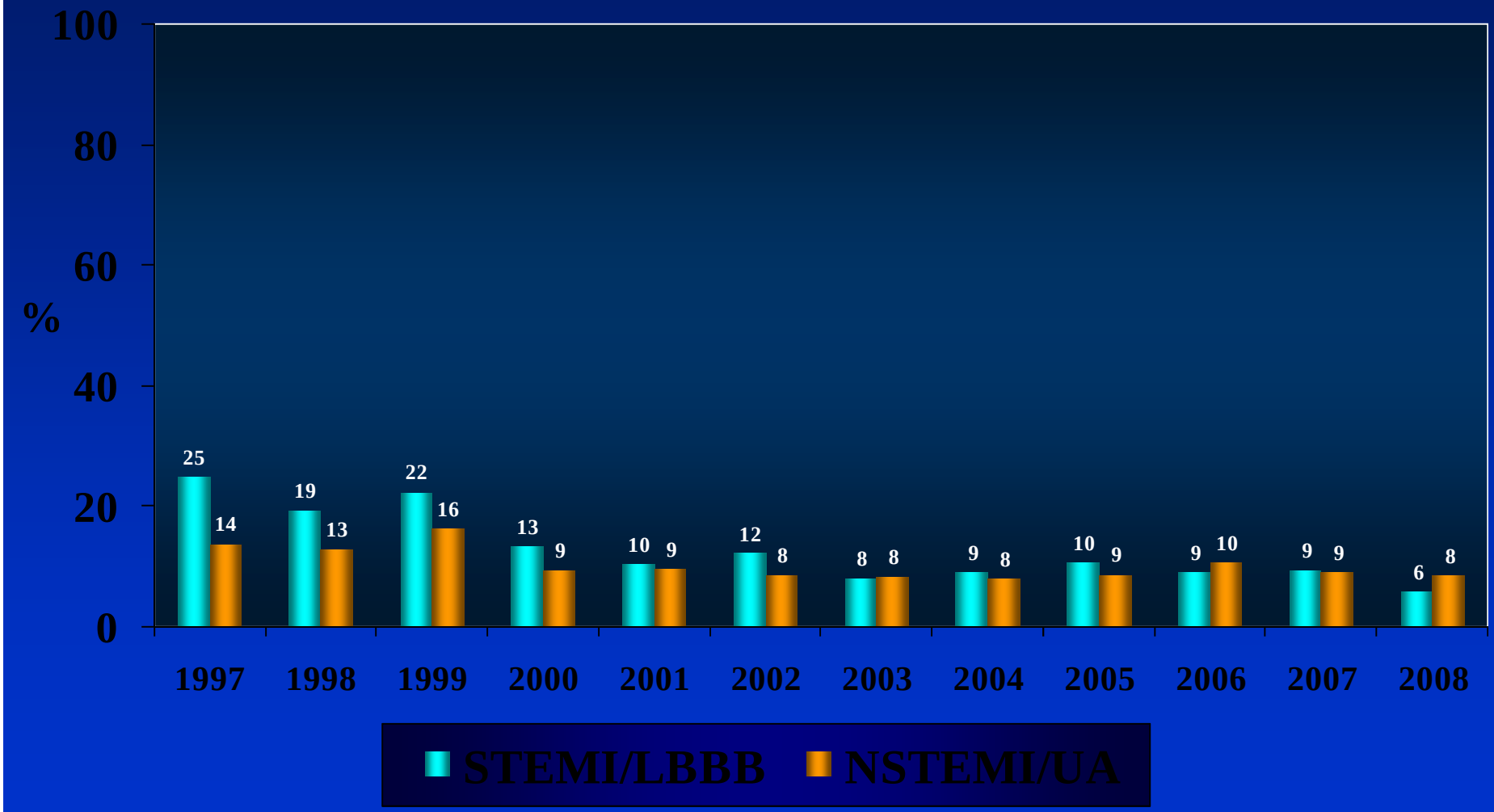

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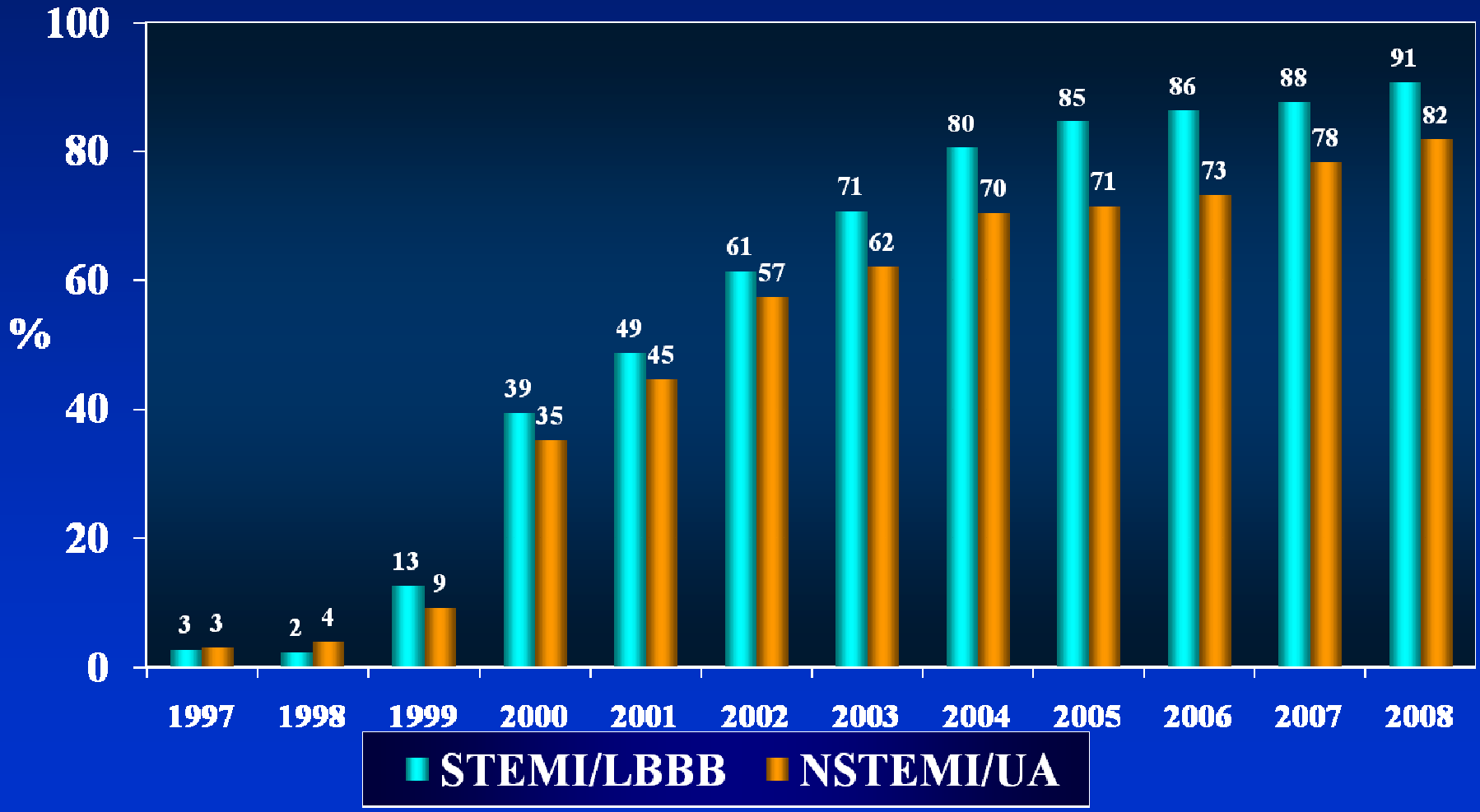
Thienopyridines at discharge



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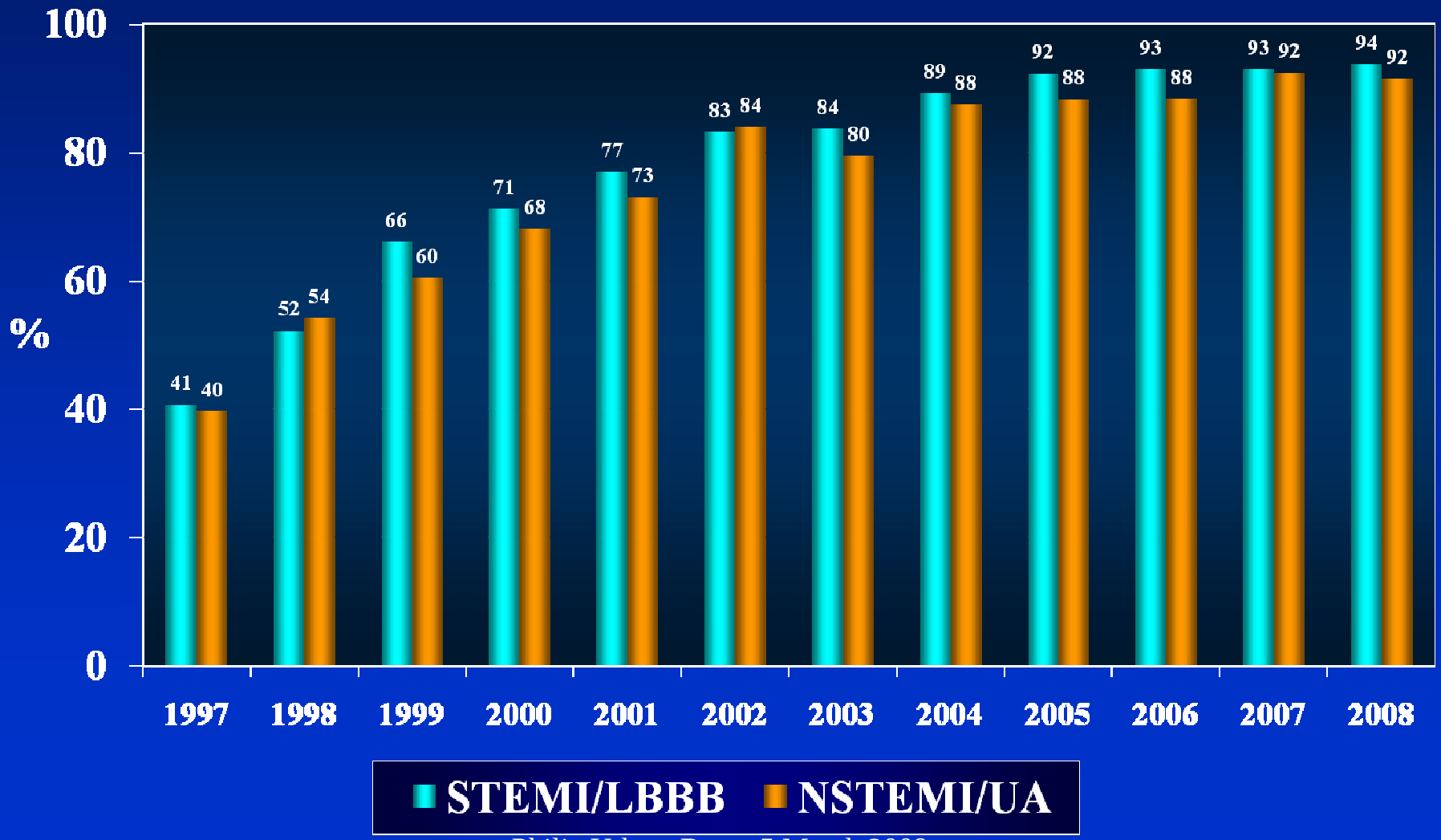
Statins at discharge



Beta blockers at discharge

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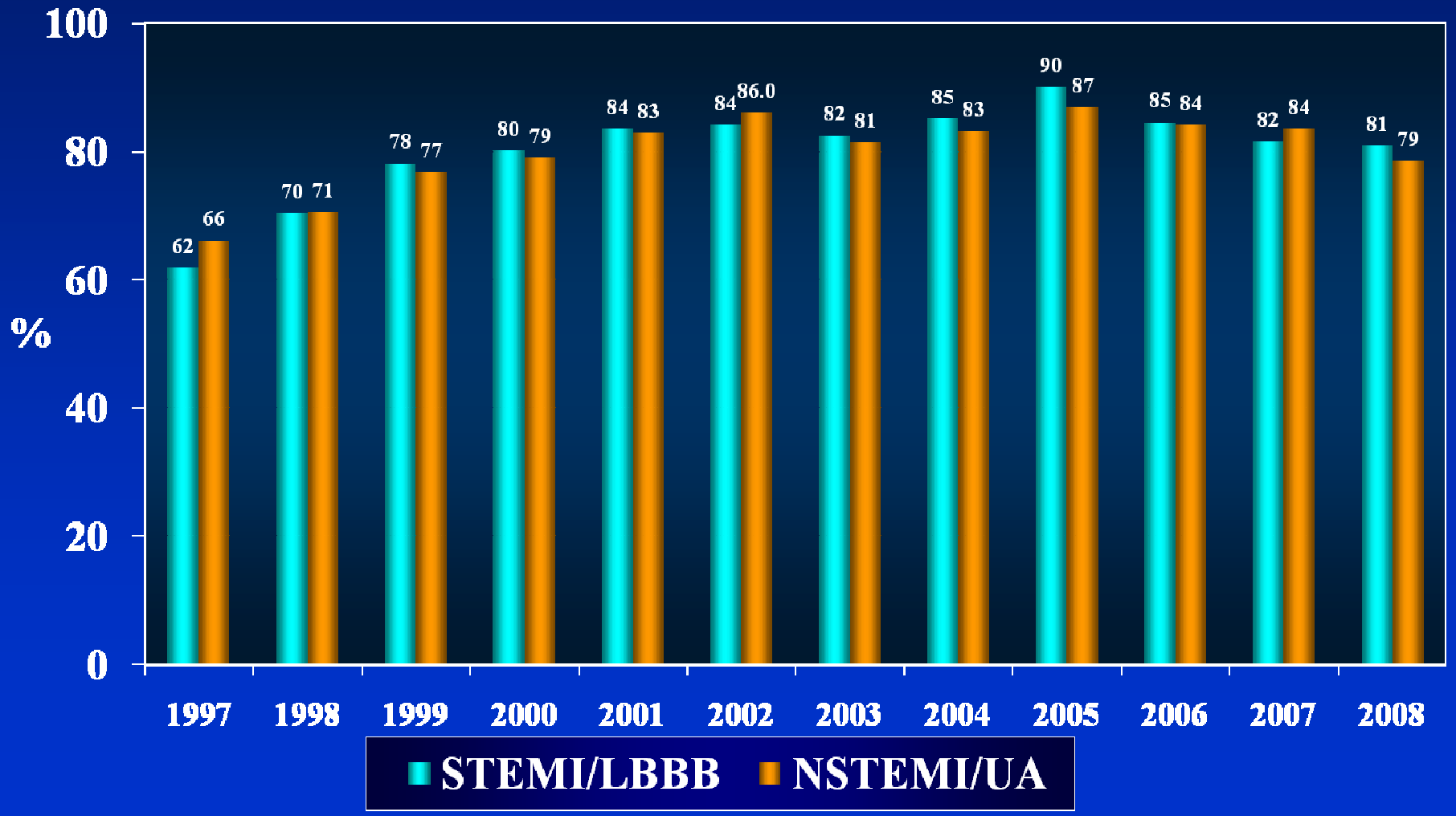

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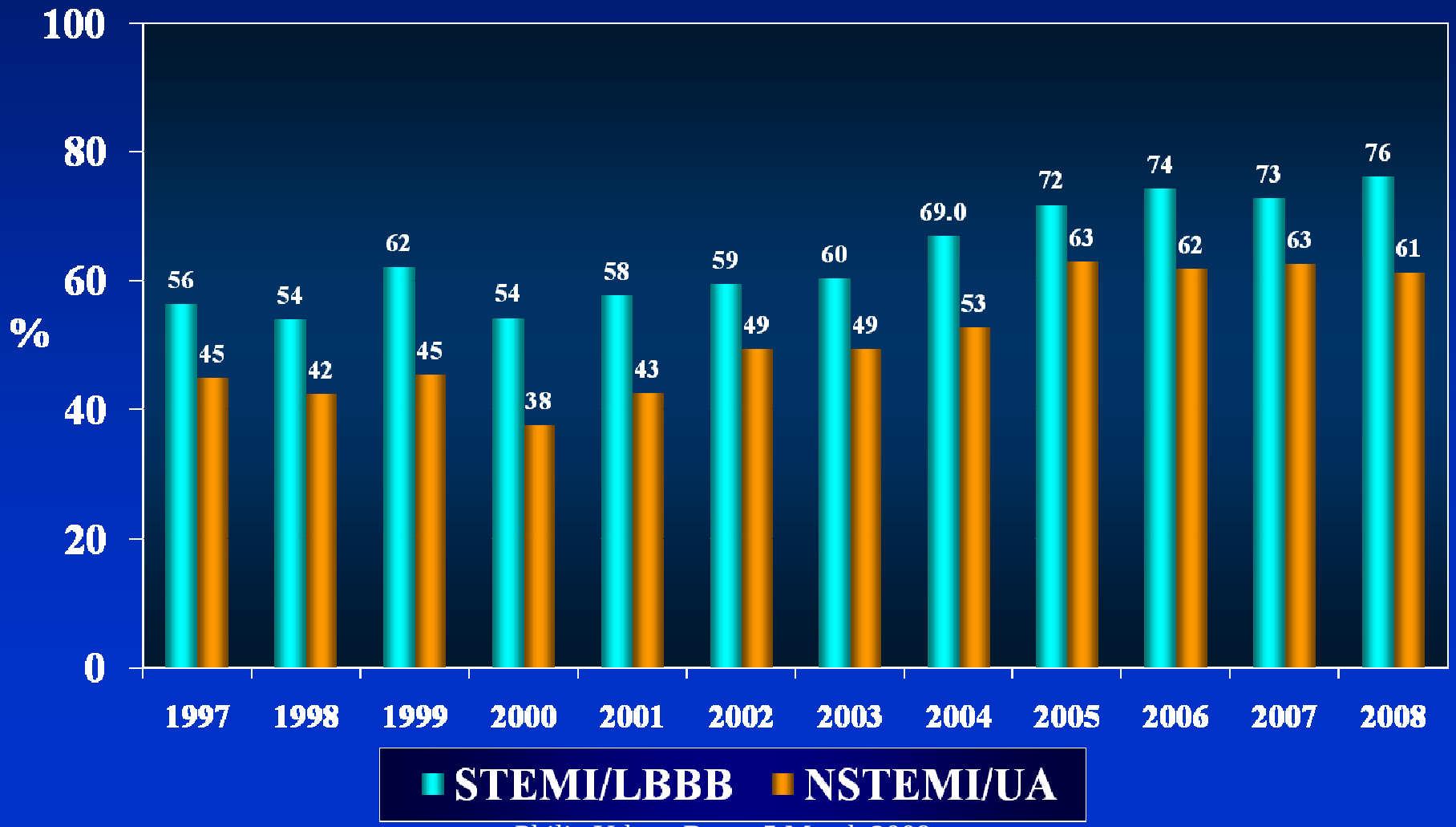
ACEI at discharge



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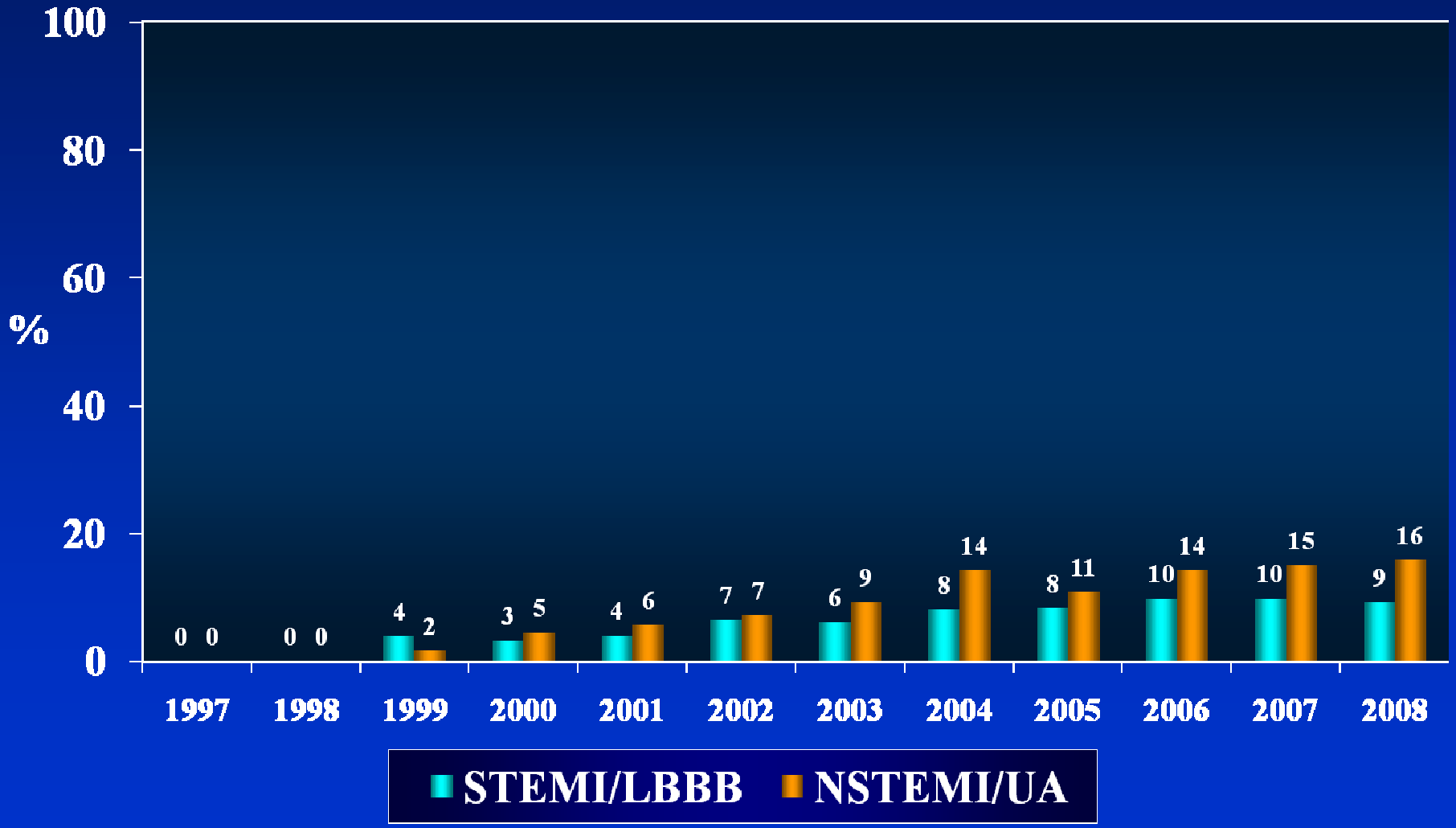
AT II blockers at discharge



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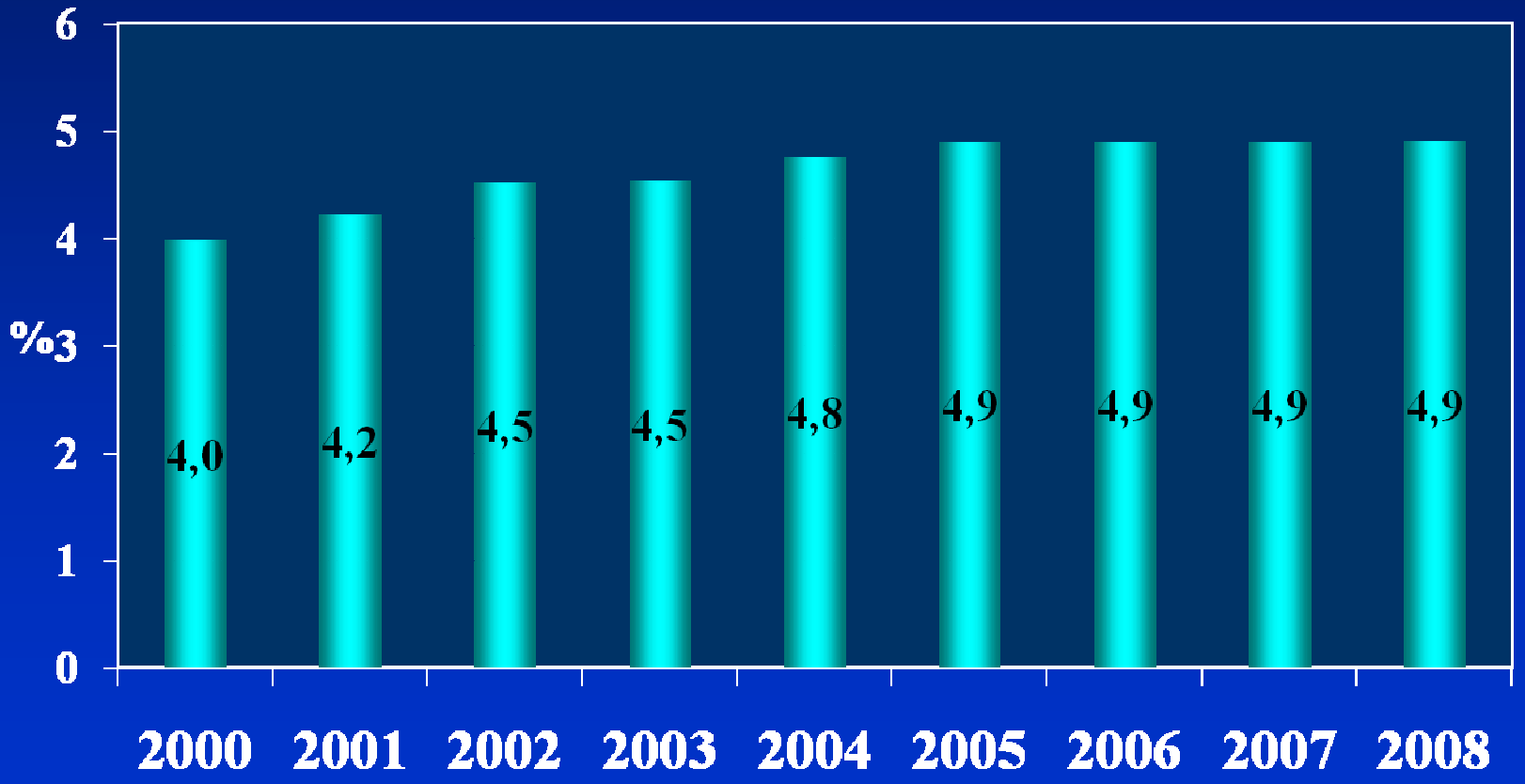
AMIS
number of cardiac drugs* at discharge



* Aspirin, ticlopidine/clopidogrel, oral anticoagulants, betablocker, ACE and AT2 inhibitors, Ca-channel blockers, long-acting nitrates, digoxin, diuretics, statins, amiodarone.

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Medication at discharge after ACS in swiss hospitals

- ✓ In the hospital setting, RCT's and guidelines have a profound (and appropriate!) impact on discharge medication after ACS
- ✓ The potential problems (compliance, cost, drug interactions) associated with complex combined drug regimens must be kept in mind

Thank you

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