Atelier ALASS

Care Pathways

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AGENZIA REGIONALE SANITARIA

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History of Pathways

- First publication on pathways in healthcare:

1987 Karen Zander, Mary Pou Etheredge & Kathy Bower

New England Medical Center Boston

“Nursing case management: blueprints for tranformation”

- In 1990’s development of Cilnical Patways in USA, United Kingdom, Canada, Australia

Pathways: synonyms used

- Care pathways
- Clinical pathways
- Diagnostical Therapeutic pathways
- Patient pathways
- Critical pathways
- Integrated care pathways
- Care profiles
- ……

Definition of Care Pathway (*)

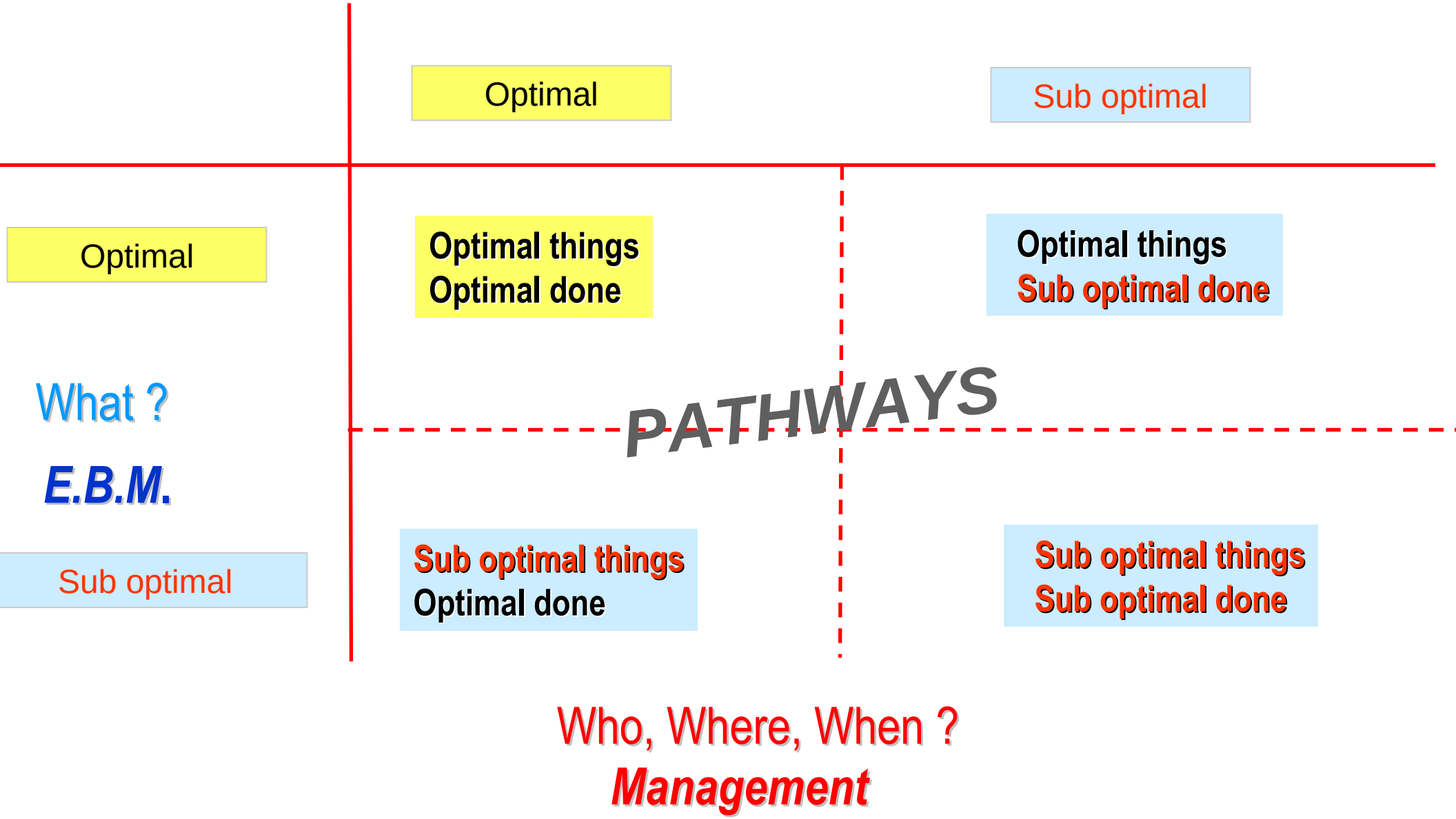
- Care Patways are a methodology for the mutual decision making and organization of predictable care for a well-defined group of patients during a well-defined period

- The aim of a care pathway is to enhance the quality of care by

  - improving patient outcomes
  - promoting patient safety
  - increasing patient satisfaction
  - optimizing the use of resources

(*) Reference: European Pathway Association, 2006, www.E-P-A.org

How to organise safe and efficient care?



Characteristics of Care Pathway (*)

- Defining characteristics of care pathways include:
  - an explicit statement of the goals and key elements of care based on evidence, best practice, and patient expectations.
  - the facilitation of the communication, coordination of roles, and sequencing the activities of the multidisciplinary care team, patients and their relatives.
  - the documentation, monitoring, and evaluation of variances and outcomes
  - the identification of the appropriate resources.

(*) Reference: European Pathway Association, 2006, www.E-P-A.org

Where are Pathways used?

- In 2006 E-P-A conduced a study on dissemination of pathways (*) :

- different level of development of Pathways in 23 Countries: Australia, Austria, Belgium, Canada, China, Denmark, England, Estonia, Germany, Guernsey, India, Italy, The Netherlands, New-Zealand, Saudi Arabia, Scotland, Singapore, Slovenia, Spain, Switzerland, UAE, USA, Wales.

- Are used as multidisciplinary tool to improve the quality and efficiency of evidence based care, as a communication tool between professionals to manage and standardise the outcome oriented care.

(*) Vanhaecht et al., Journal of Integrated Care Pathways 2006

Problems in use of Pathways

- The study conduced by E-P-A in 2006 on dissemination and use of Pathways showed (*) :

- Management is not involved everywhere
- Patients are not always involved
- Most teams are using own concept and methodology
- Pathways are not always supported by EBM guidelines
- Lacking of team working
- Clinical / Quality Indicators are not always used

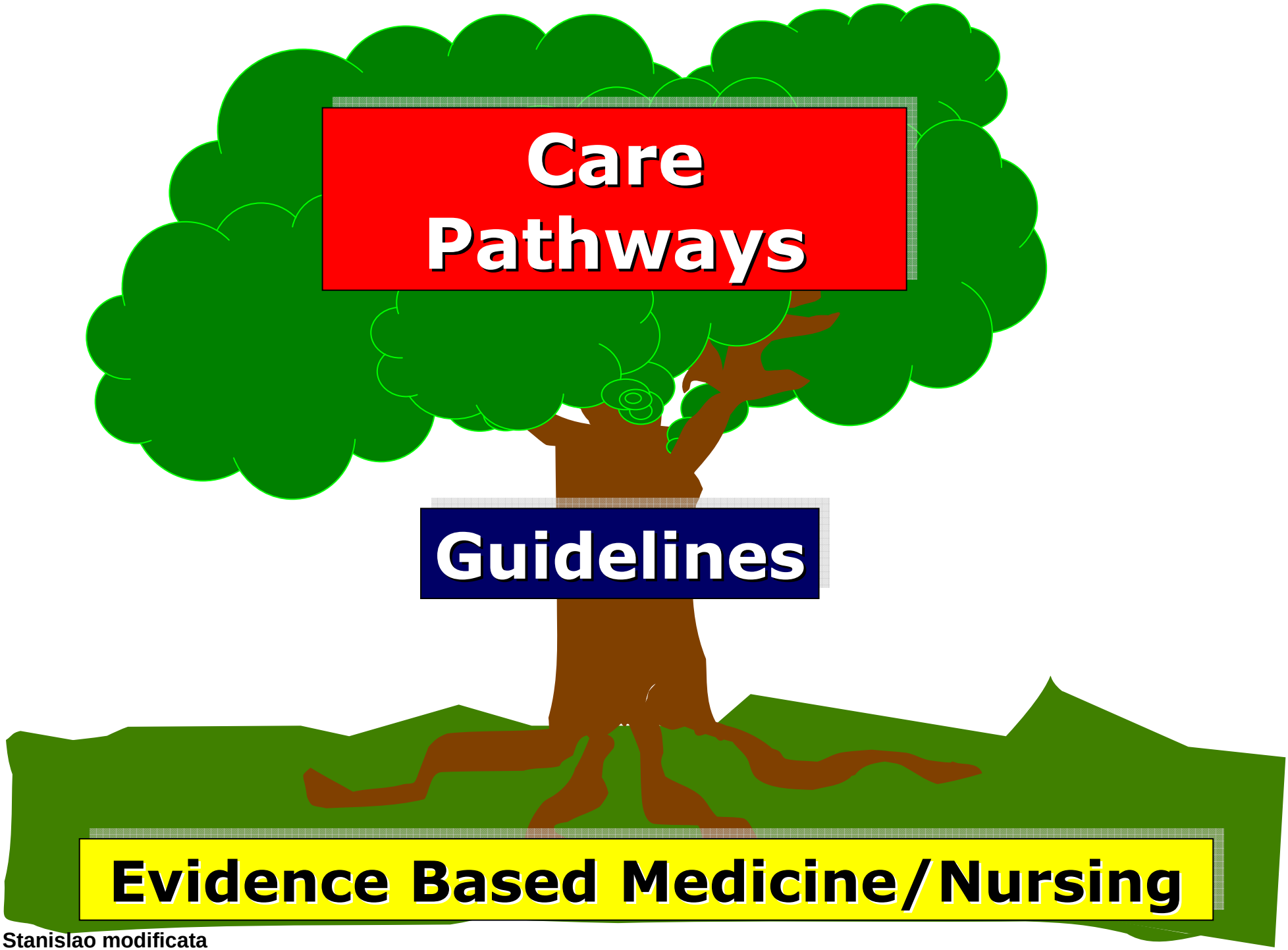
Using own concept and methodology

- An integrative literature review on Critical pathway development (9 studies included in the review) (*)
- Results: an overview of similarities and differences between 9 different methods
- Typical phases and steps of pathway development
  - Focus and recognition phase (*patient population, workteam, main goals)*
  - Assess and analyse phase *(actual organitation, avalaible evidence)*
  - Development phase *(build pathway)*
  - Implementation phase *(education of team, follow-up of pathtway)*

(*) Harkleroad, A., Schirf, D., Volpe, J., and Holm, M. B. : Critical Pathway Development: an Integrative Literature Review. Am.J.Occup.Ther. 2000;54(2):148-54.

Using own concept and methodology

- Teams use different templates for clinical pathways:
  - Extensive
  - Brief



Da F. Di Stanislao modificata

Pathways are not always supported by EBM guidelines

In care pathways we find (*):

- Lacking of intervention evidence based
- Presence of interventions that are not evidence based
- Presence of interventions where there is evidence *against*

(*) Devriese et al., KCE Reports vol. 18 2005

Why ?

- Evidence is not avalaible for the Care pathway
- Evidence is avalaible for Care pathway but team don’t know about it
- Evidence provide “what” and “why” but *the management* don’t provide “who”, “where” and “when” (Application of Evidence in daily practice)

Lacking of team working

Why Team working is essential to development and implementation of Care Pathways?

- Identify areas for improvement
- Accountability
- No monopoly on care
- Strong relationship among professionals

Clinical / Quality Indicators are not always used

- The aim of a care pathway is to enhance the quality of care
- Optimize the use of resources is one of the aspects of quality of care
- Use of quality indicators and outcome indicators is essential

Do pathways work? Reviews 1999-2008

- Different situations and different goals and outcomes:
  - Processes (improved documentation, communication, teamworking
  - Outcomes (in hospital mortality, pain control, readmission rate…)
  - Costs (length of stay, use of tests, use of drugs ...)
  - Safety (healt care associated infections, in hospital drops …)
  - Patient satisfaction

Do pathways work ? Reviews 1999-2008

- Results:
  - Positive effects
  - Negative effects
  - No effects

- The quality of care patwhays in use is not well known

- A few number of Randomized Trials

Reviews

Clinical pathways for chronic cough in children. 2008

Authors' conclusions

Without further available evidence, recommendations for the use of clinical pathways for the treatment of chronic cough in children cannot be made. **Trials are required** to provide evidence on the effectiveness of clinical pathways for the treatment of chronic cough in children

Multidisciplinary rehabilitation programmes following joint replacement at the hip and knee in chronic arthropathy. 2008

Authors' conclusions

Based on the heterogeneity and the low quality of the included trials that precluded pooled meta-analysis, there is silver level evidence that following hip or knee joint replacement, early multidisciplinary rehabilitation can improve outcomes at the level of activity and participation. The optimal intensity, frequency and effects of rehabilitation over a longer period and associated social costs **need further study.**

Protocols

Clinical pathways: effects on professional practice, patient outcomes, length of stay and hospital costs
Thomas Rotter, R Koch, Joachim Kugler, Holger Gothe, Leigh Kinsman, Erica James
Year: 2007

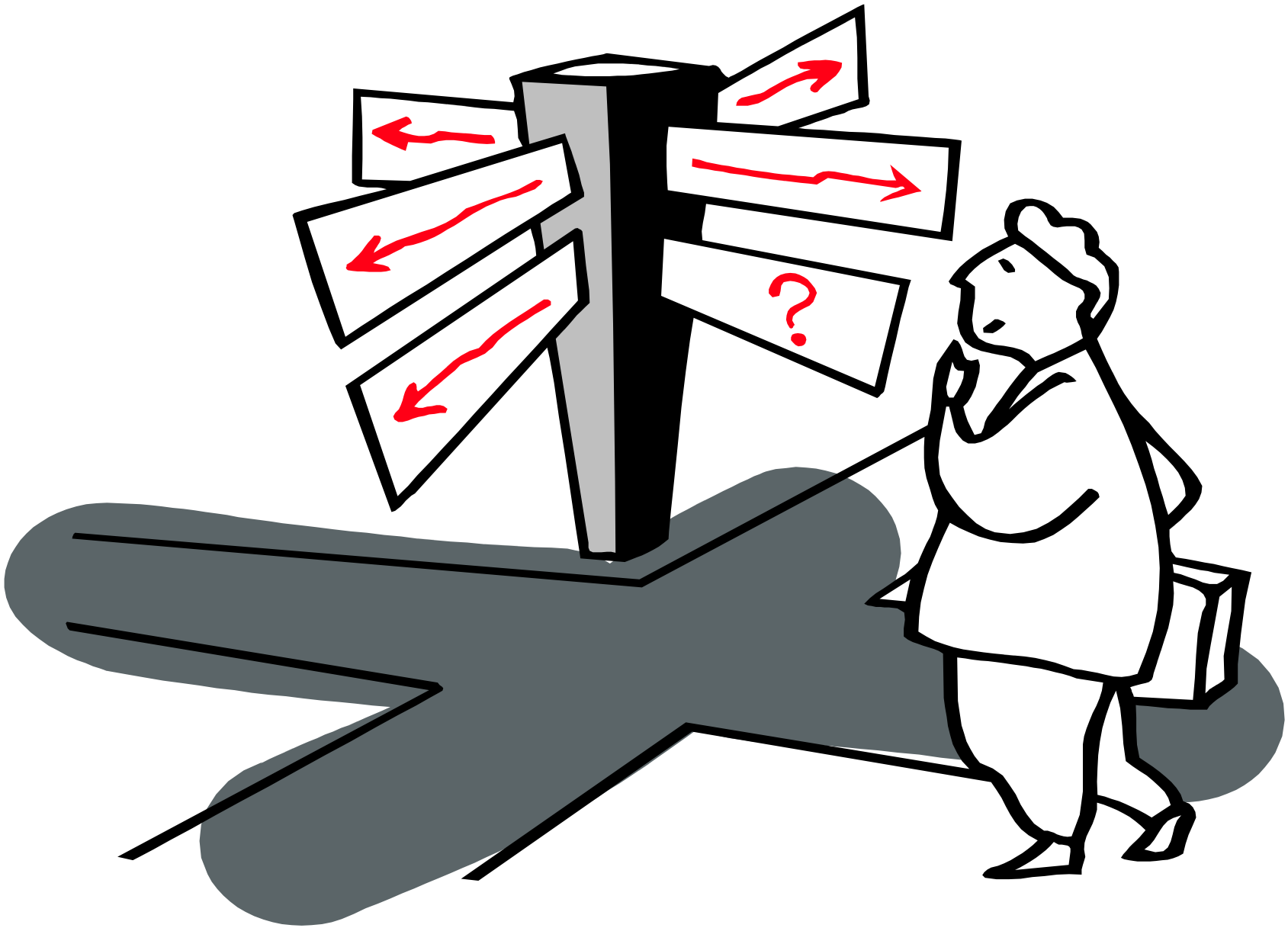
Pre-hospital emergency pathways for people with suspected stroke
M Ferri, ML Sacchetti, A De Luca, D Toni, S Gabriele, V Gallo, G Guasticchi
Year: 2006

DEVELOPMENT AND IMPLEMENTATION OF CARE PATHWAYS: THE EXPERIENCE OF MARCHE REGION- ITALY

Phase 1

- In 2000 trained 200 healthcare workers
- In 2000 and 2001 1 Care Pathway for each Hospital Department
- Devolepd 88 CPs but **only 5 implemented and monitored***

*Panella M, Marchisio S, Di Stanislao F..:**Reducing Clinical Variations With Clinical Pathways: Do Pathways Work?** **Int.J.Qual.Ass.*15 (6): 509-521; 2003*.



Phase 2

- In 2003 Regional Health Care Agency of Marche Region started a new Project for development and implementation of CPs in the Regional Health Care System

- Aim: to enhance the quality of care for patients with STEMI, Stroke, Hip Fracture, Hearth failure and COPD in Healtcare Organizations of Marche Region

Key words

- Establishment of a performance improvement framework based on Evidence Based Guidelines, regional quality indicators and standards, monitoring system and auditing
- Involvement and accountability of all stakeholders (clinicians, managers, politicians, patients and citizens)
- Use of integrated clinical pathways (ICPs) as a flexible tool adapting to local context
- Establishment of a Project team in Regional Healt Care Agency for Project Management

Devolepment and implementation of the Project-1

Step	Level	Action	Output
1	Regional expert panel: multidisciplinary, multiprofessional group, representative of all stakeholders	To select and share the best evidence-based interventions for patients suffering STEMI, Stroke etc, and to set regional standards (goals) and indicators.	Regional Reccomendations on the management of these patients, Regional Quality Indicators and Regional Standards
2	15 Local workteams (one for each Local Health Organization): multidisciplinary, multiprofessional group, representative of all healthcare professionals and manager	To implement and adapt Regional Recommendations in activities of daily practice	15 ICPs representing interpretation of the same best practice at local level, accounting for different services organization and resources

Devolepment and implementation of the Project-2

Step	Level	Action	Output
3	Regional development of web-based monitoring system (Regional Registry/Audit Siystem)	To measure performance of regional healthcare system in achieving defined standards	Reports on the state of healthcare quality delivered for these patients
4	Regional and local analysis of the results of the reports	Regional benchmarking and local audit activities	Revision and correction of activities if suboptimal performance measures
5	Regional and local cycle of continuous quality improving	Regional update of evidence-based recommendations and standards, local revision of ICPs	Updated regional guideline and local ICPs

Involvement of professionals and manager

- Multiprofessional and Multidisciplinary Regional Expert Panel for STEMI, Stroke, Hip Fracture

206

- Local Multiprofessional and Multidisciplinary Teams for STEMI, Stroke, Hip Fracture

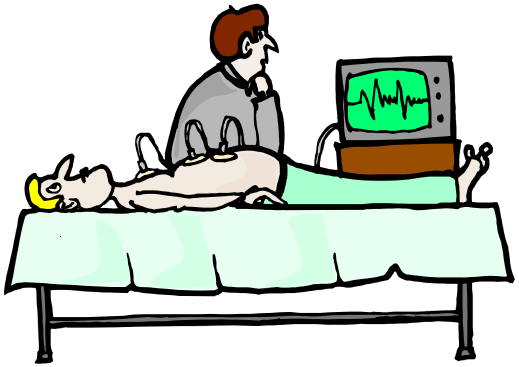
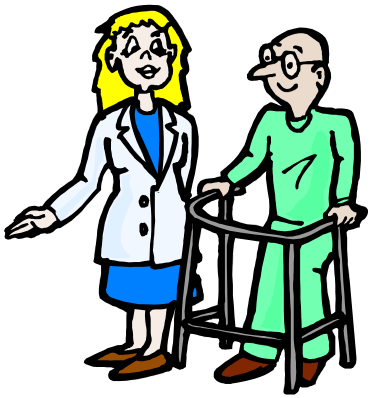
1254

Regional Reccomendations for management of STEMI

RECCOMENDATION	GRADE
Esecuzione ed interpretazione di un ECG a 12 derivazioni entro 10 min dall'arrivo in Ospedale [1]	I

CRITERION	INDICATOR	REGIONAL STANDARD	DATA COLLECTION
Tempestività	Tempo che intercorre tra l'arrivo in Ospedale e l'esecuzione del primo ECG a 12 derivazioni in Pronto Soccorso < 10 min	> 90%	-data e l'ora di arrivo in PS -data e ora di esecuzione primo ECG in PS

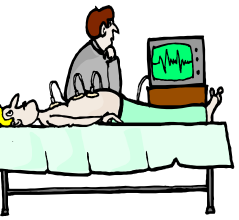
QUALITY INDICATORS FOR STEMI ICPs

PRE HOSPITAL MANAGEMENT	ACUTE HOSPITAL MANAGEMENT	POST ACUTE HOSPITAL MANAGEMENT	POST DISCHARGE MANAGEMENT
			
4	9	12	10

Sample of quality indicators for STEMI in Marche Regional Health System: results of first six months of monitoring

INDICATORS	RANGE (%)		REGIONAL MEDIA (%)	REGIONAL STANDARD (%)
	MAX	MIN		
Access to hospital by EMS system (118)	69	14	40	80
Delay from symptoms onset to calling EMS/1-1-8 <120 min	95	63	85	Not set
12-lead ECG within 10 minutes of ED arrival	100	55	72	80
Door to needle time ≤ 30 min	100	17	48	70
Door to ballon time ≤ 90 min	NA*	NA*	42*	70
30 days mortality (included inhospital mortality)	39	0	11	Not set
30 days reinfarction (included inhospital reinfarction)	8	0	2	Not set
30 days on aspirin	100	71	91	90
30 days no smoking status	100	50	92	90

*NA: not applicable. Data only from 1 out of 2 cardiac catheterization laboratory.



12 lead ECG within 10 minutes from Emergency Department arrival

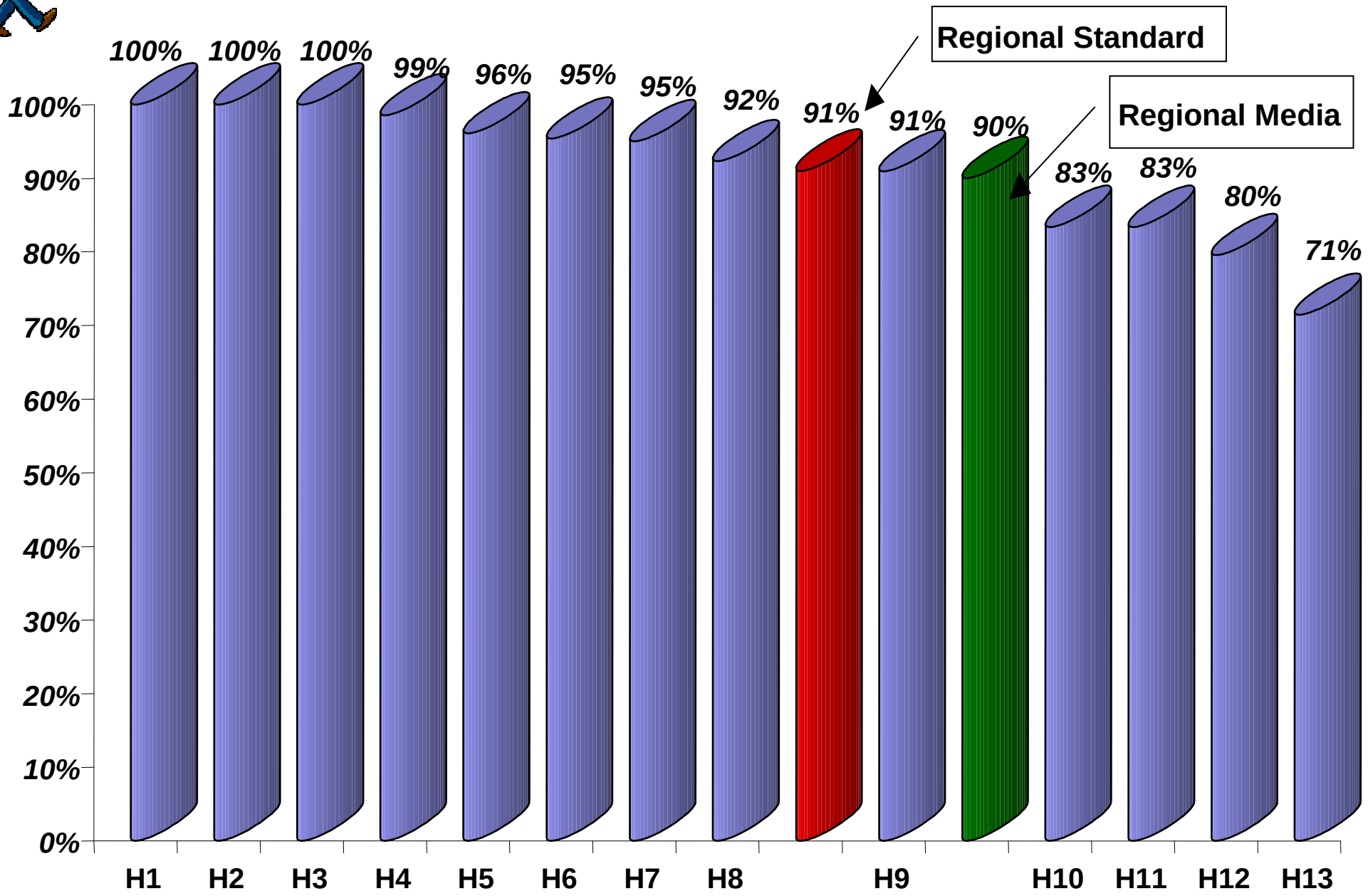
Regional Standard

Regional Media

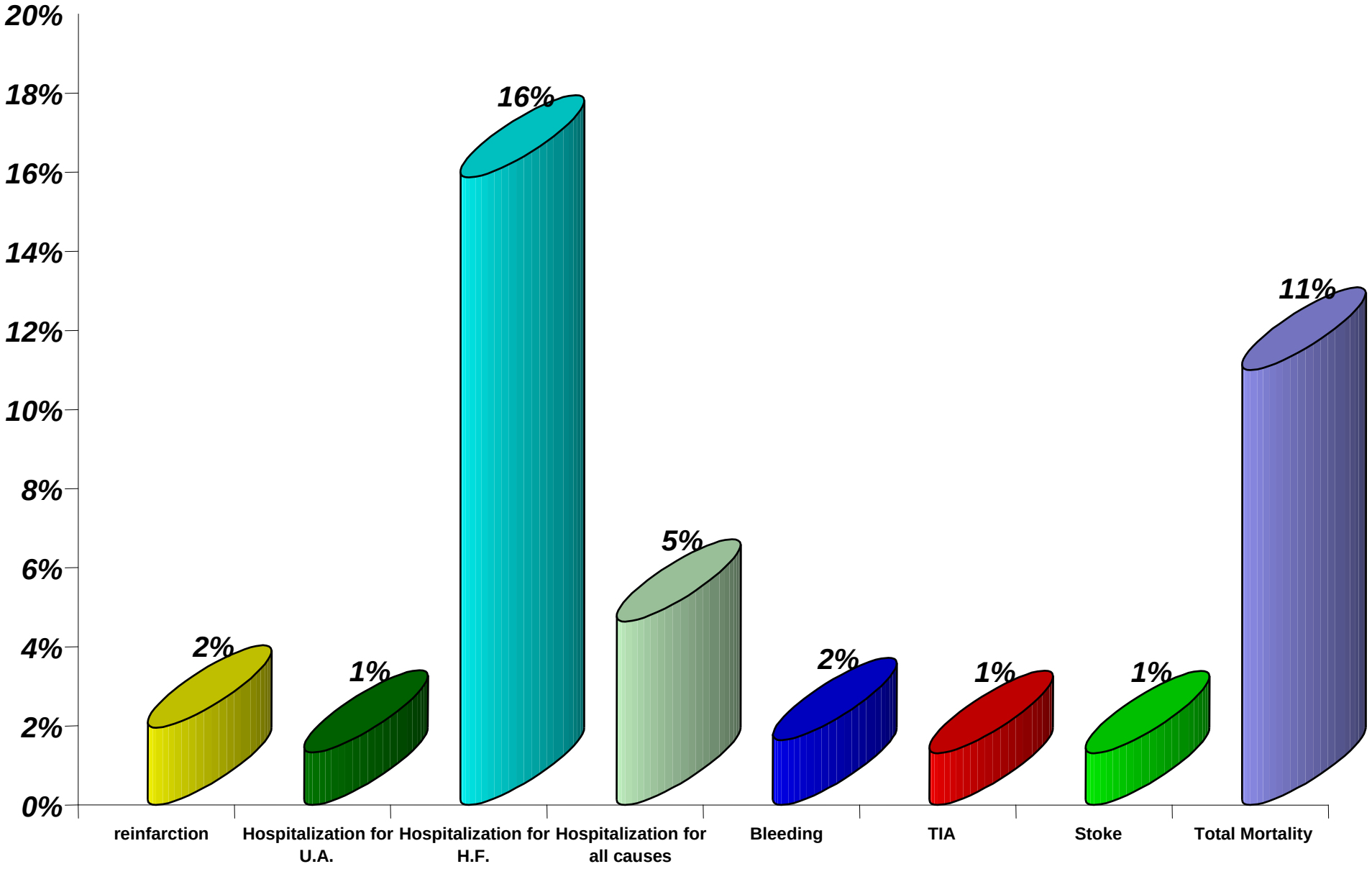
H1	100%
H2	86%
H3	85%
H4	83%
H5	80%
H6	79%
H7	72%
H8	70%
H9	69%
H10	67%
H11	63%
H12	61%
H13	60%
	56%
	55%

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

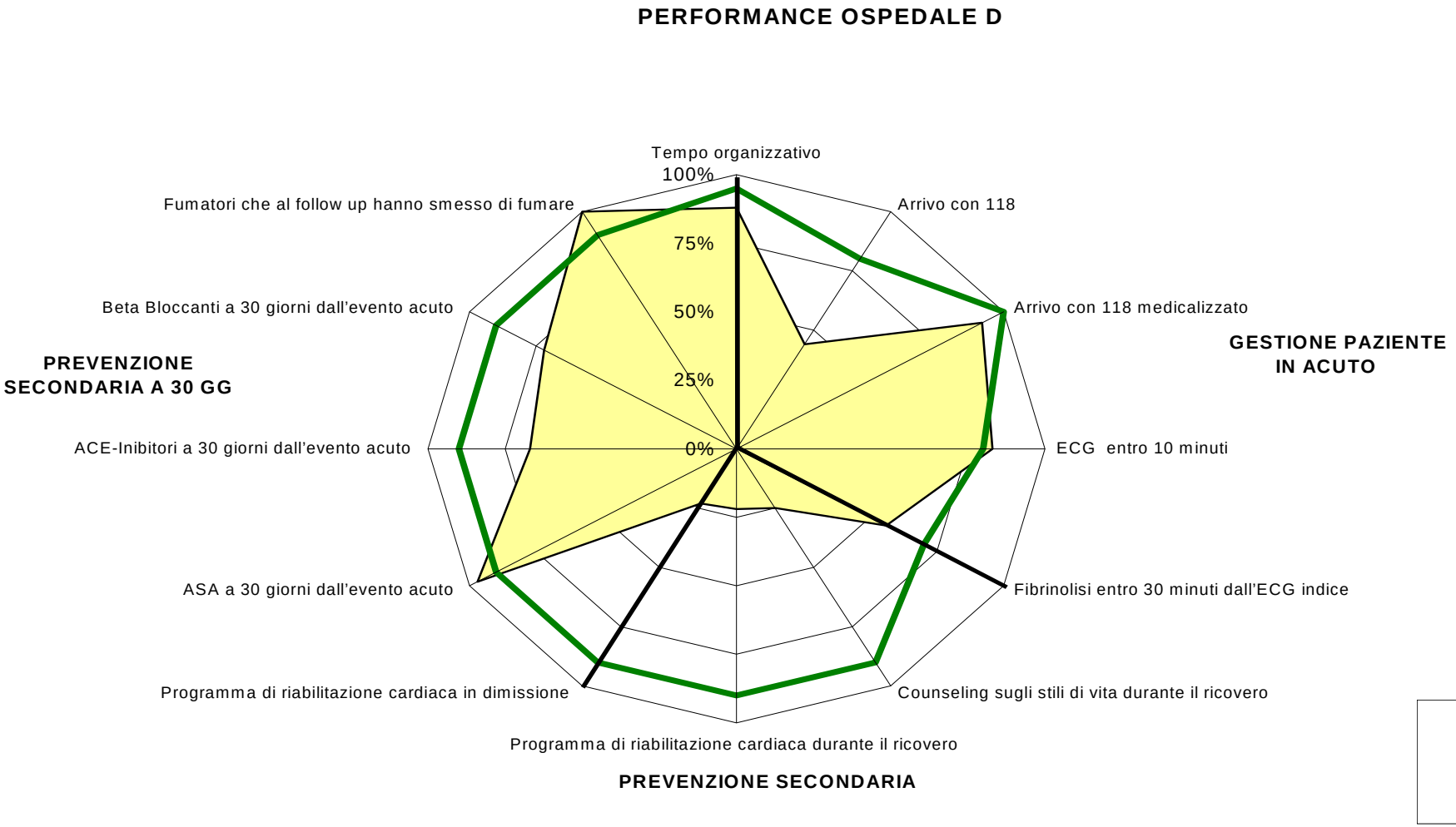
On aspirin therapy at 30 days from discharge



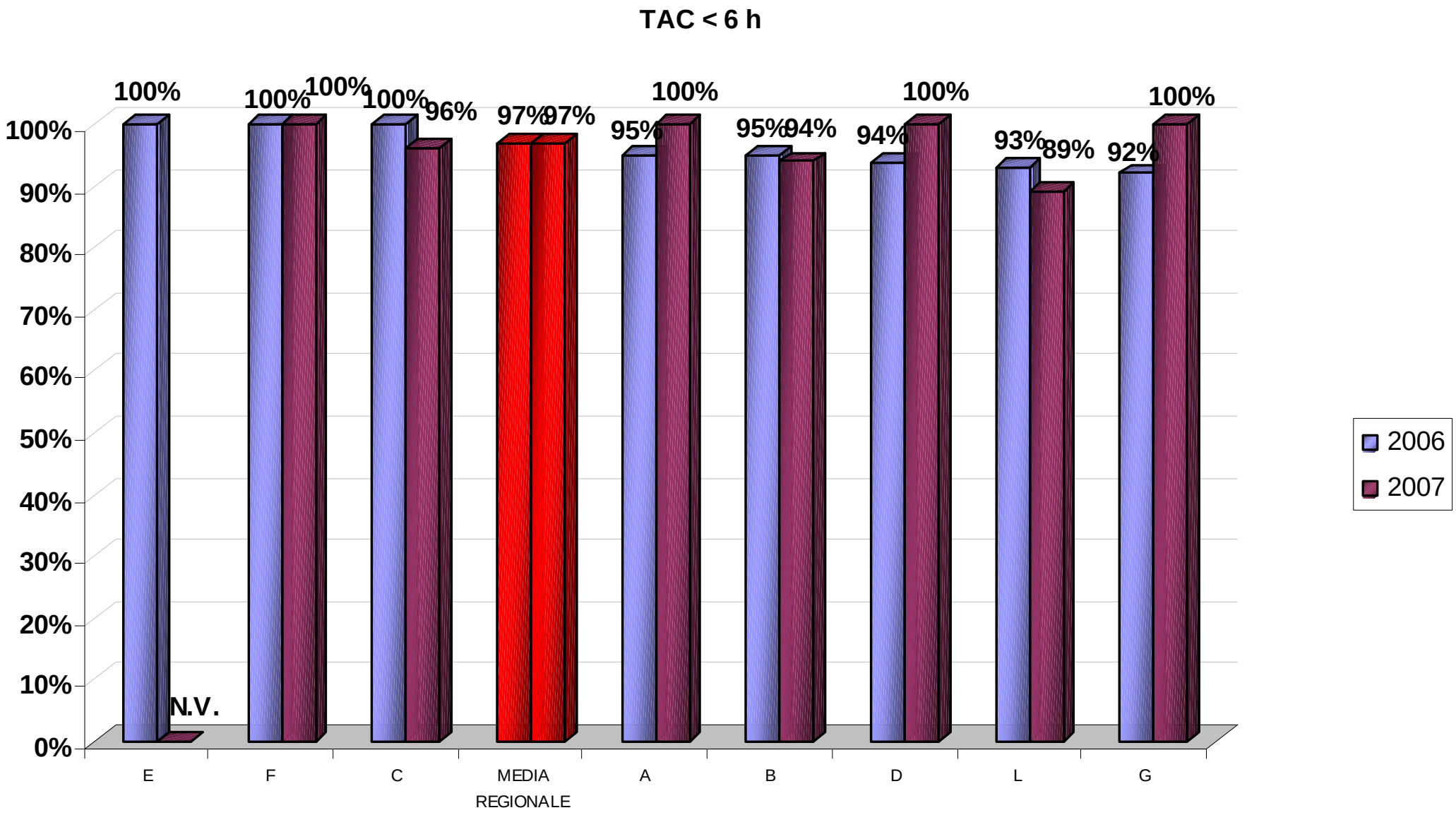
Events at 30 days from discharge (included inhospital events)



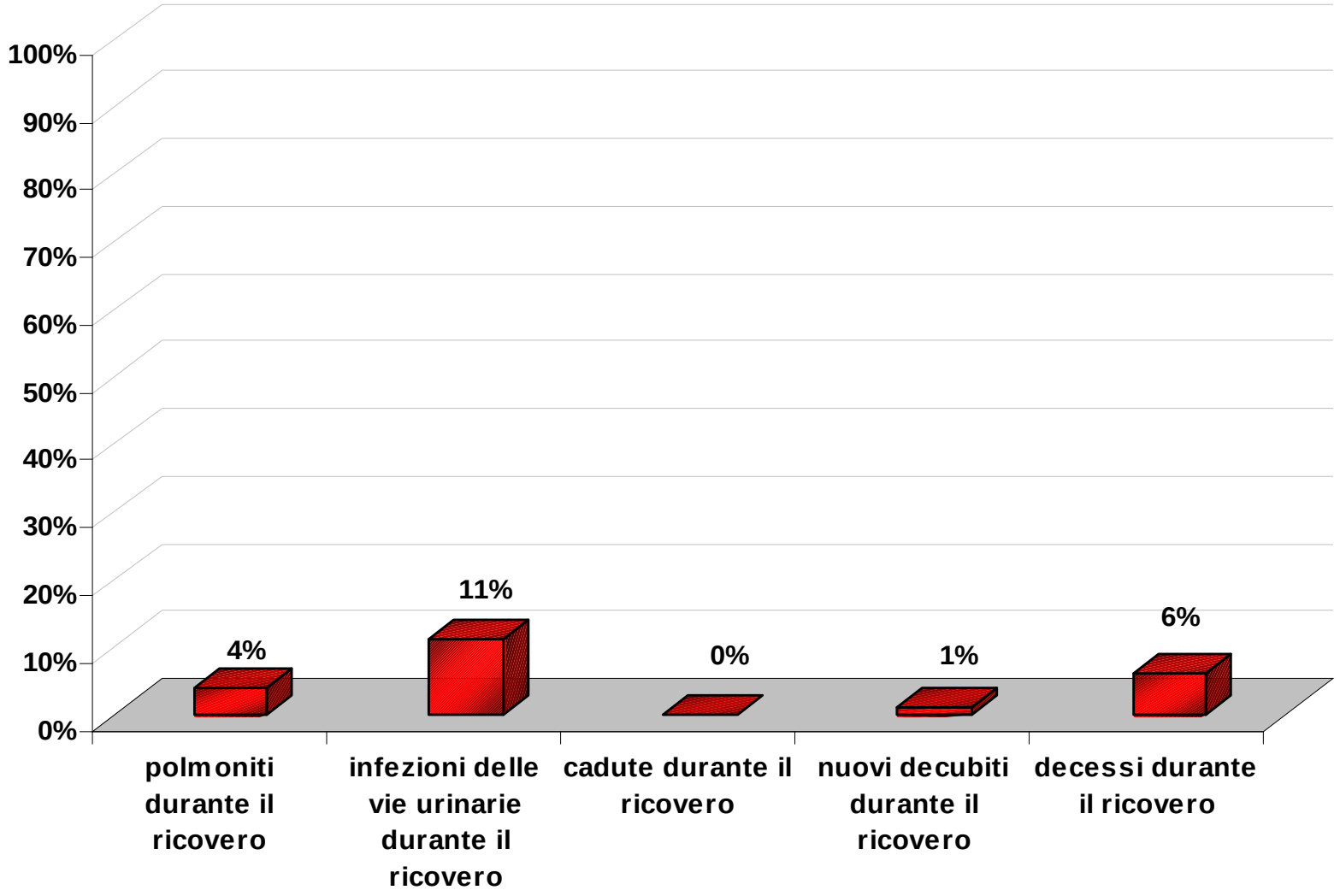
Quality Indicators for STEMI ICPs: Performance of the Hospital D and Comparison with Regional Standards



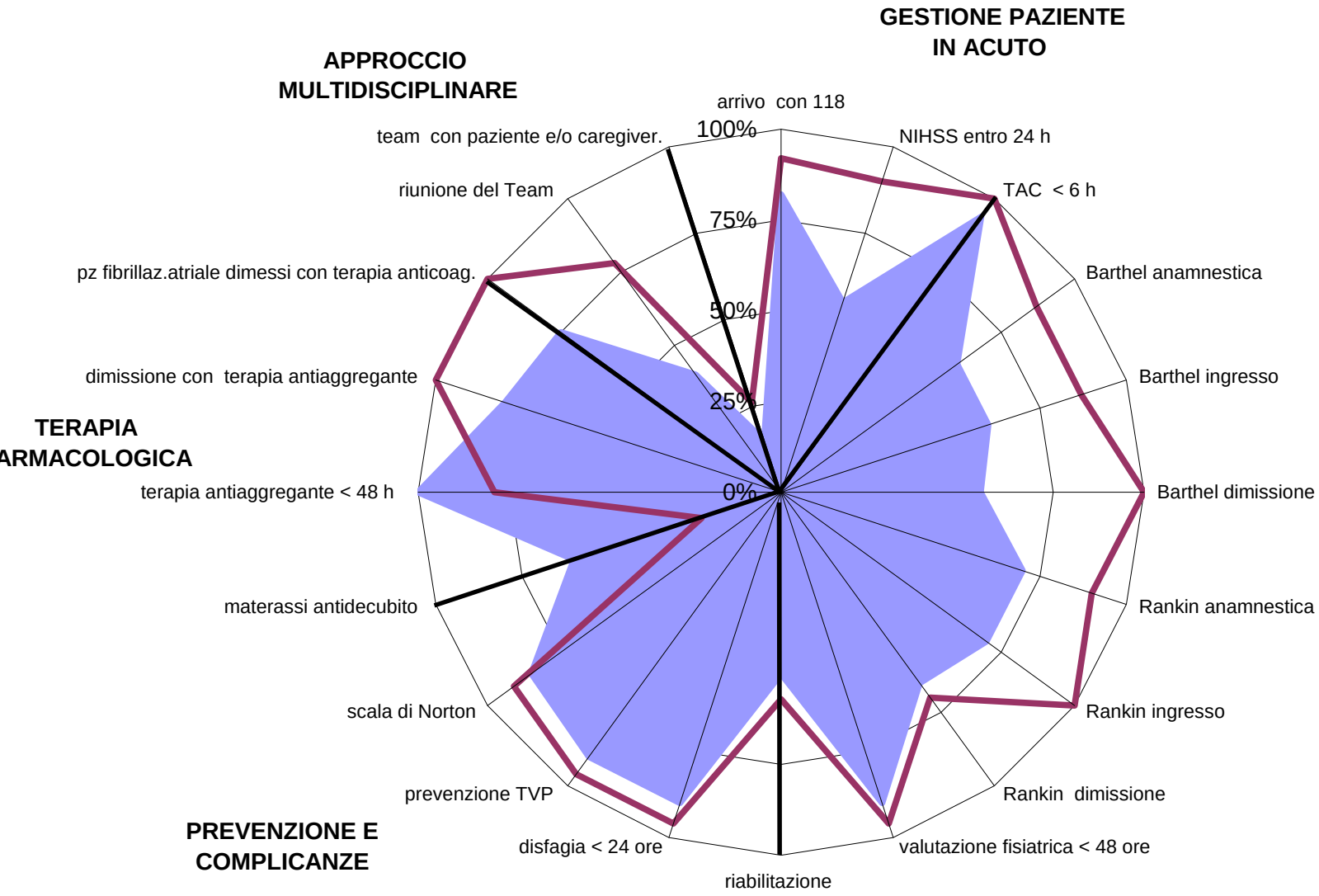
Quality Indicators for Stroke ICPs: TAC < 6 hrs from arrival



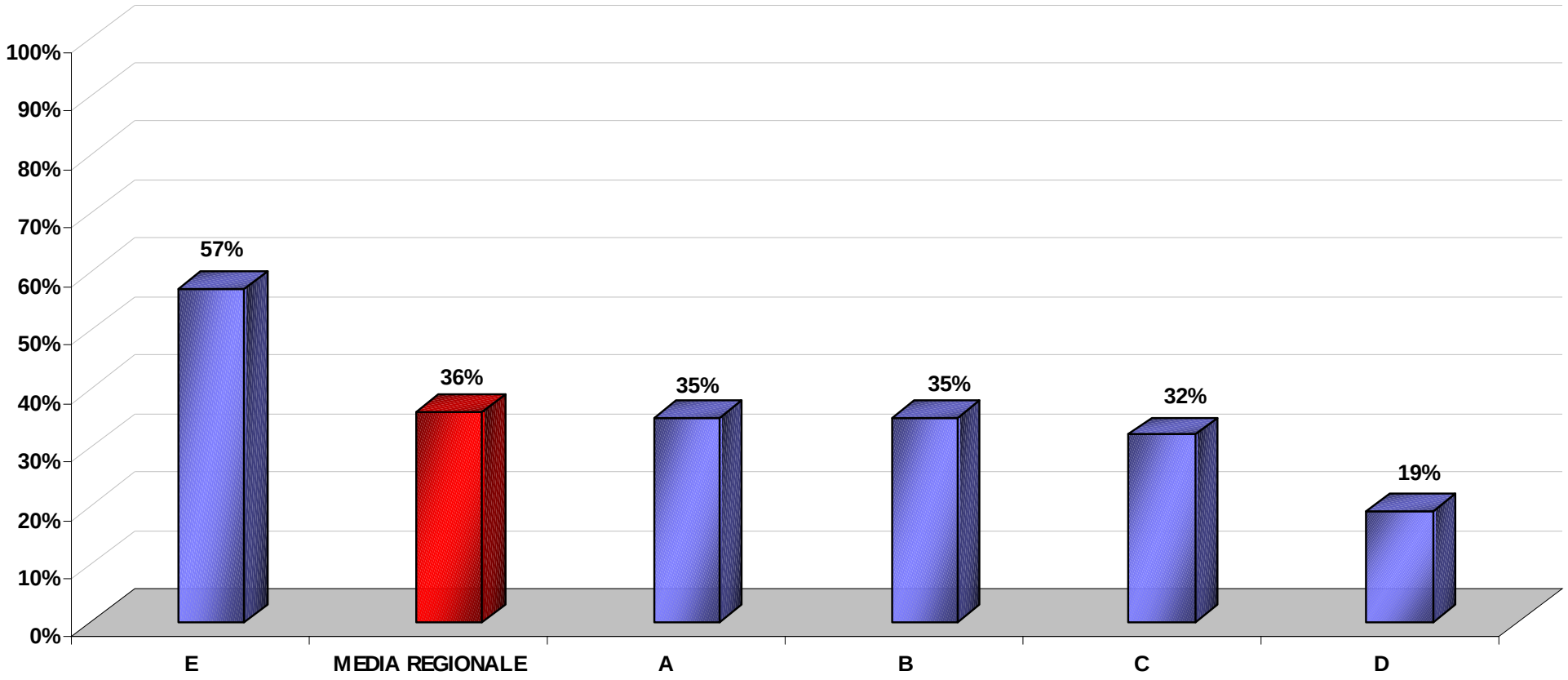
In Hospital Quality and Outcome Indicators for Stroke ICPs



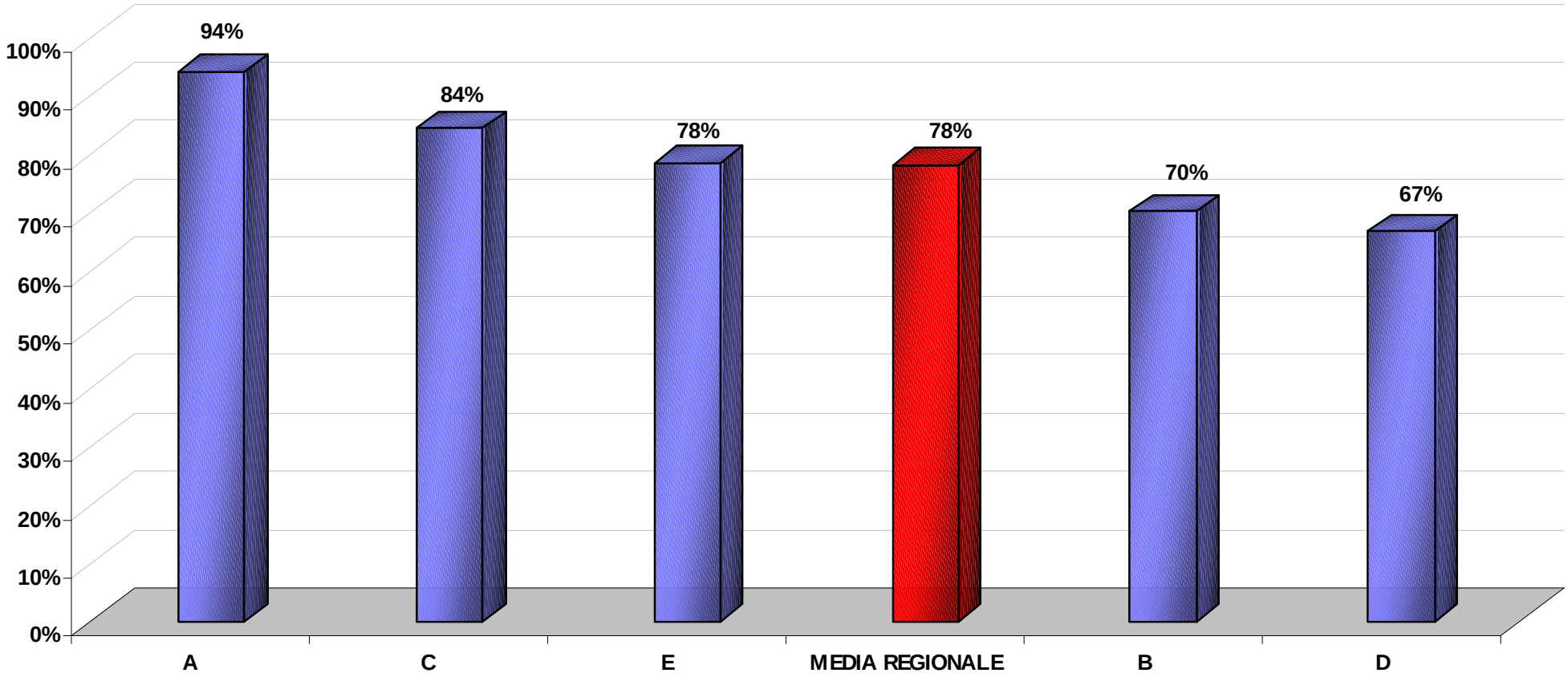
Quality Indicators for Stroke ICPs: Performance of the Hospital B and Comparison 2006-2007



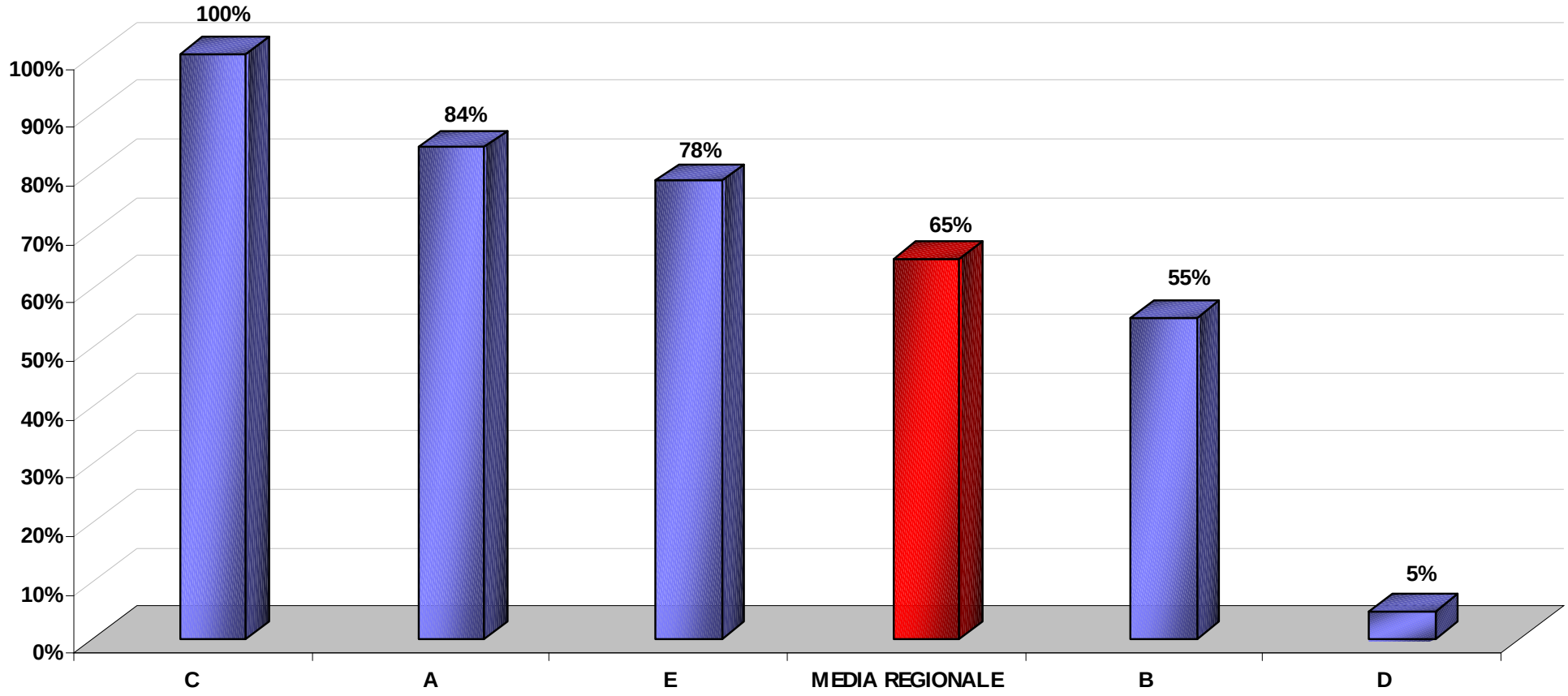
Quality Indicators for Hip Fracture ICPs: Surgery in 24 hrs from arrival at the Hospital



Quality Indicators for Hip Fracture ICPs: Use of Evidence Based Antibiotic prophylaxis



Quality Indicators for Hip Fracture ICPs: Team Working



Conclusions 1

- This is the first experience, in Marche Region, of clinical governance applied to all regional healthcare system enabling the system to assess quality of care delivered to well defined group of patients.

- On the basis of the reports, activities of clinical audit at local level and benchmarking at central level was undertaken. In september-november 2008 n 8 Audit concluded with local teams for Stroke.

- Several actions are already ongoing and more will be planned to remodel interventions and organizational systems to better fit standards of care.

Conclusions 2

- High Satisfaction of the Professionals for the Project
- Sporadic support of the Managers
- The Project is very time consuming and particularly the monitoring of quality and outcome indicators
- ECM is a good tool for development of Care Pathways