

Comparison of Two Systems of Clinical Performance Assessment

Some issues surrounding clinical
governance

David Henderson

Queensland Health Clinical Governance Framework

- Introduced in 2006
 - Based on discussion paper 2006
- Principal features
 - Assignment of line management responsibility for patient safety and quality
 - Inspectorial system, based on post-hoc analysis of adverse events and outcomes
 - Establishment of a hierarchy of managerially based committees to govern the system
 - Use of central data to monitor clinical performance

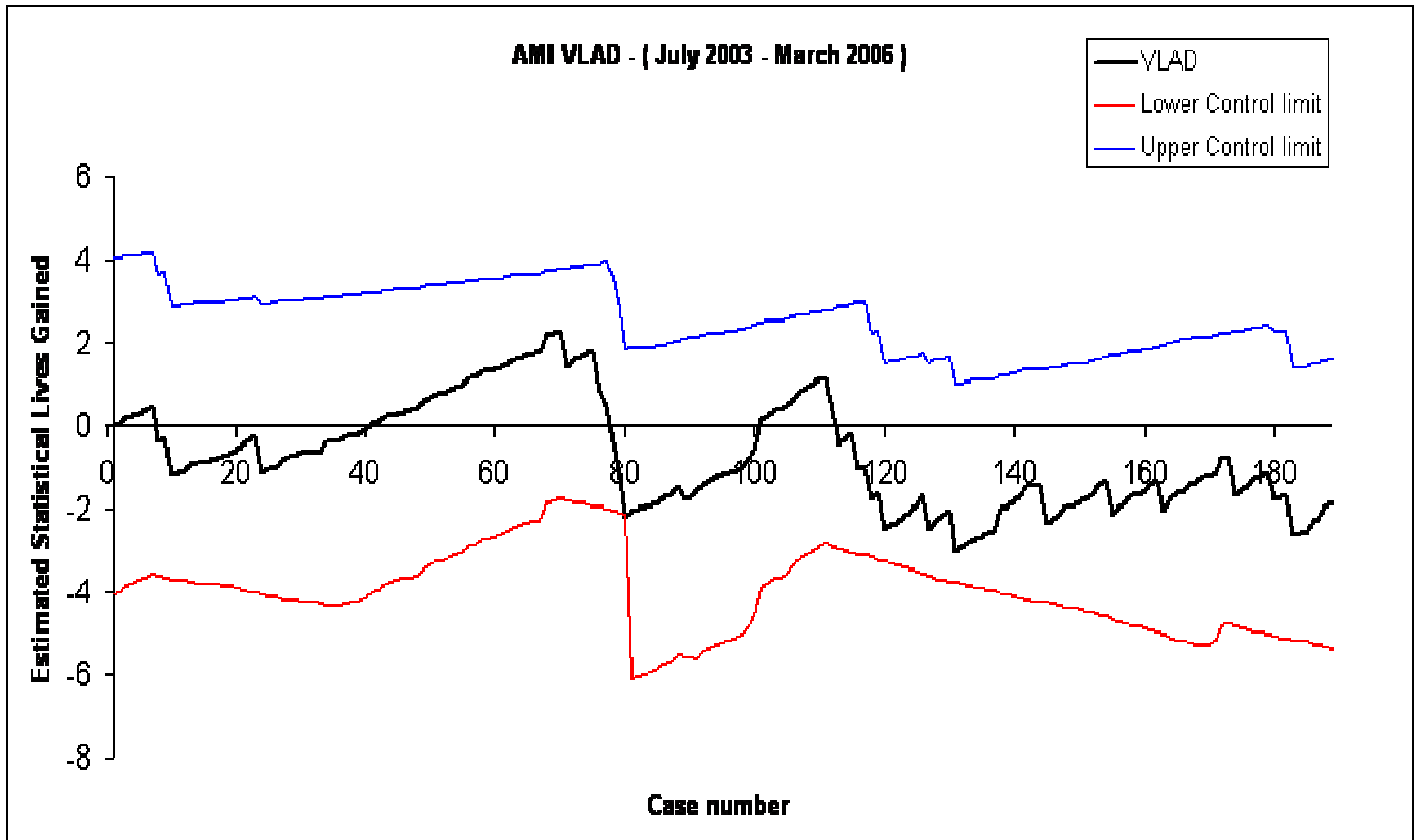
Questions

- What information is needed to evaluate clinical performance?
- Can clinical governance be centralised and separated from operational clinical management?

Measurement of clinical performance, the VLAD

- Death from myocardial infarction
- Analysis of survival and death based on probability derived from previous QH experience
 - Coded discharge data (DRG)
 - Age and co-morbidity factored in
 - Q-sum statistics
 - Presented as Variable Life Adjusted Display (VLAD)

Deaths, principal diagnosis; myocardial infarction



20 deaths out of 189 discharges

Analysis of deaths from myocardial infarction

- June 2003 to March 2006
 - Total cases 189
 - Total deaths 20 (10.6%)
 - 8 died in ED, age 41 - 88 (67)
 - 12 admitted, age 69 - 88 (83)

Emergency Department Deaths Myocardial Infarction

Age	Diagnostic status	ECG	Tn	CK	Clinical picture
80	Definite	Diag	+	+	Extensive MI, died in EMD after lysis
41	Definite	Diag	+	+	Anterior MI, probably several days old. Cardiogenic shock.
60	Probable	Non Diag	+		Probably MI, asystolic cardiac arrest.
67	Presumptive	Non Diag	-		Cardiogenic shock due to MI
82	Presumptive	Non diag			Shock, possibly due to myocardial infarct
57	Presumptive	Non diag		-	Cardiogenic shock probably due to myocardial infarction
85	Presumptive	Non diag	-	-	Admitted in extremis, known IHD, COAD presumed diagnosis
88	Presumptive	Non diag	+	-	Out of hospital arrest, known IHD

Inpatient deaths Myocardial Infarction

Age	Diagnostic status	ECG	Tn	CK	Clinical picture
87	Definite	Diag	+	+	Cardiac arrest at home, ant MI, septal rupture
84	Definite	Diag			MI, admitted in extremis
86	Definite	Diag	+	+	Fatal MI
69	Definite	Diag	+		Ant MI, Ca Lung, dementia, palliative decision
83	Probable	Non diag	+	+*	Multiple organ failure, rhabdomyolysis Presumptive diagnosis of MI,
87	Probable	Non diag	+		Non STEMI, intractable cardiac failure, Ca colon
88	Probable	Non diag	+	+	MI complicated by pulmonary oedema and stroke
88	Probable	Non diag	+	+	MI complicated by Stroke
84	Probable	Non diag	+		Non STEMI, complicated by pneumonia
84	Probable	Non diag	+	-	Pulmonary oedema due to ischaemia, possible sepsis
84	Probable	Non diag	+	+	MI, cardiogenic shock, co-morbidities, including dementia
84	Presumptive (Sepsis)	Non diag	+	+	Probably sepsis, no clinical evidence of myocardial infarction

VLAD Summary

For myocardial infarction

- Coding appropriate in most cases
 - Represents definite or most likely clinical diagnosis
- Data not clinically selective
 - includes patients with
 - Severe disease and high risk of death
 - Complications and/or comorbidities associated with mortality or leading to decision to adopt palliative treatment
- The process selects patients who are not treated according to standard clinical pathways
- Does not measure effectiveness of normal management processes for myocardial infarction

Cardiac Collaborative

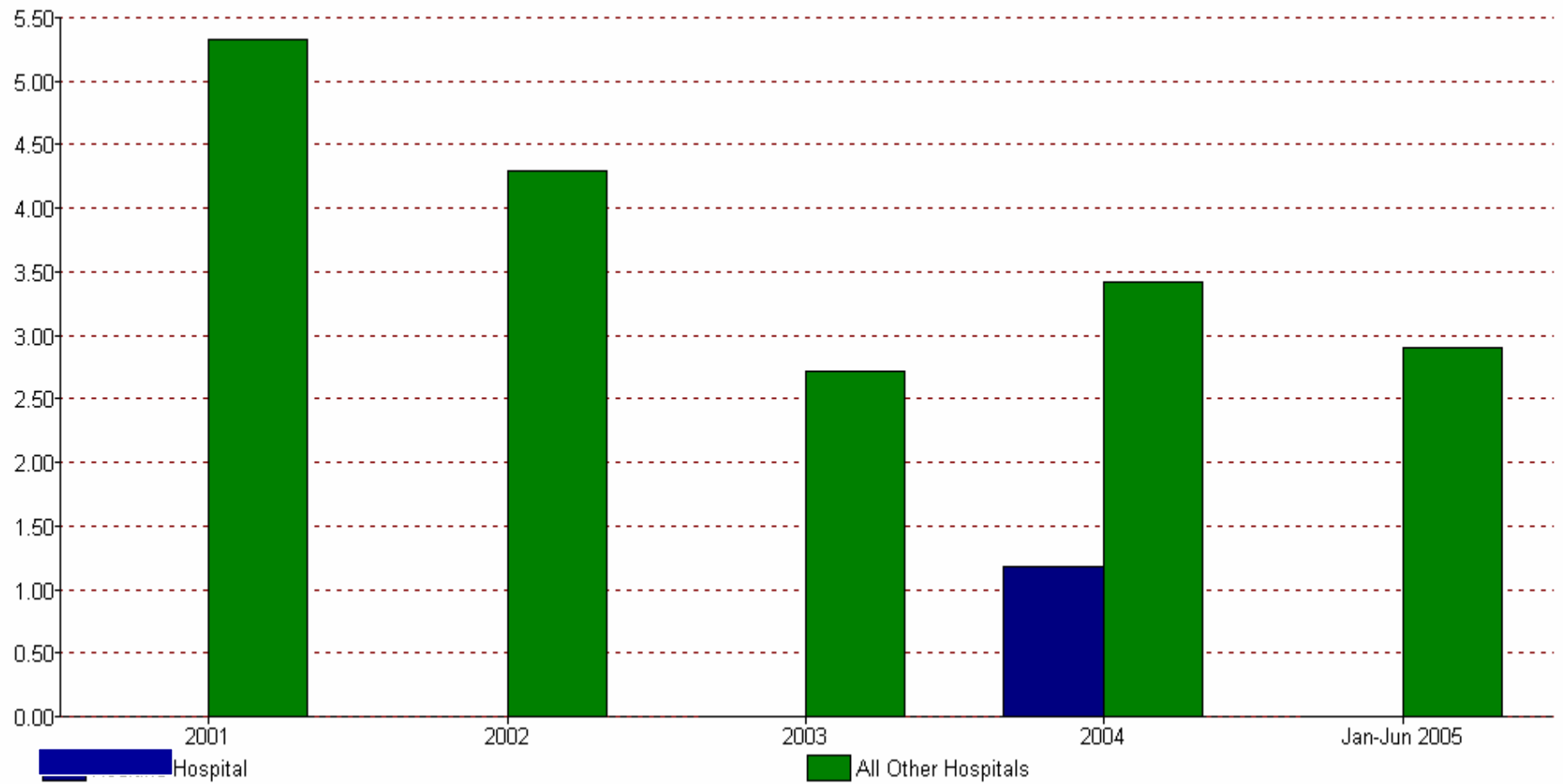
Acute Coronary Syndrome

- Clinician initiative
- Collection of process and outcome data relating to clinical indicators for acute coronary syndrome
- Includes patients meeting selection criteria for intermediate and high risk acute coronary syndrome
- Based on best practice guidelines*
- Clinical indicators reviewed in light of new published evidence by steering committee and biannual meetings
- Data collected in hospitals and analysed centrally
- Fed back through Queensland Health Decision Support System to give benchmarked performance data
- Has resulted in significant performance improvement

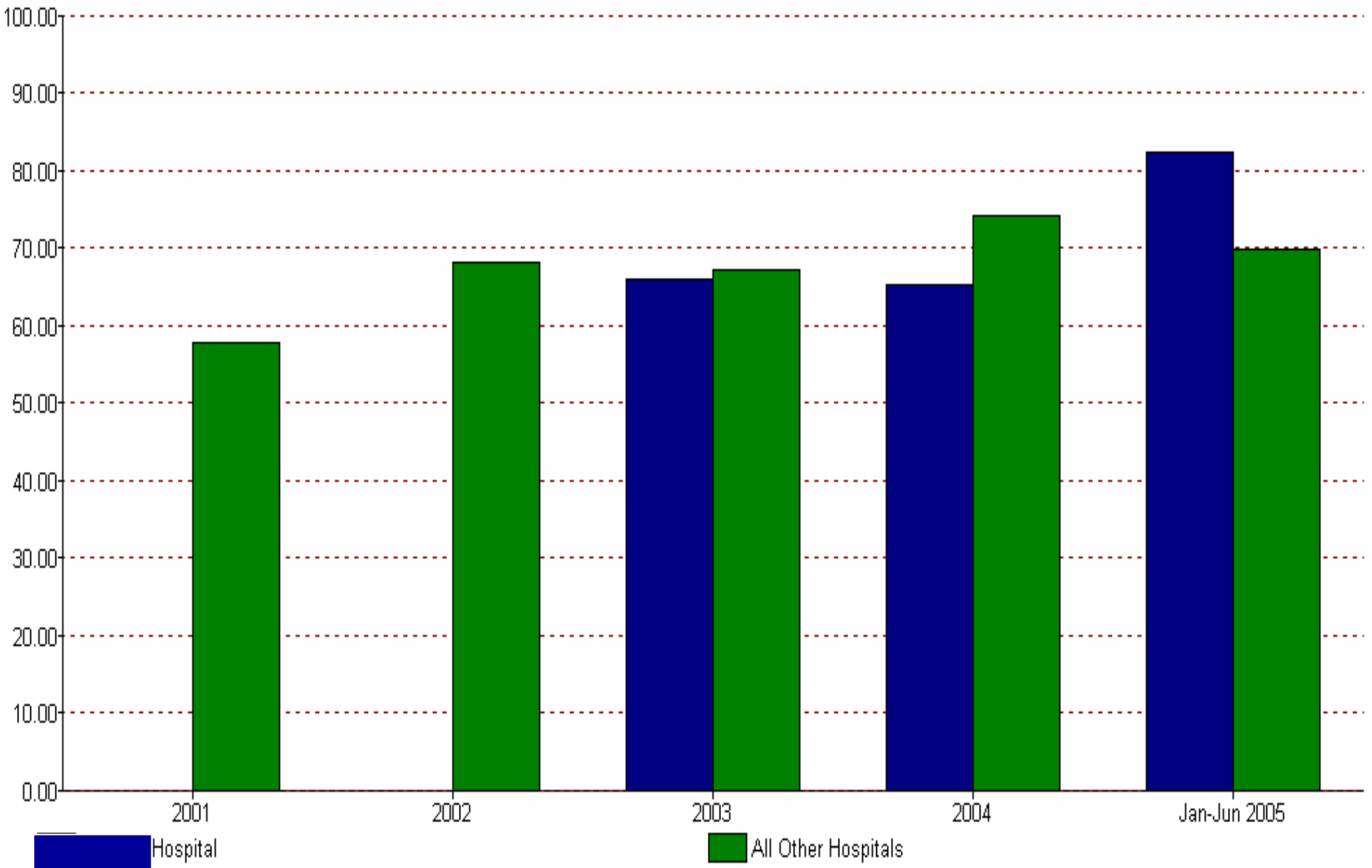
*Management of unstable angina guidelines 2000

*Guidelines for the management of acute coronary syndromes 2006

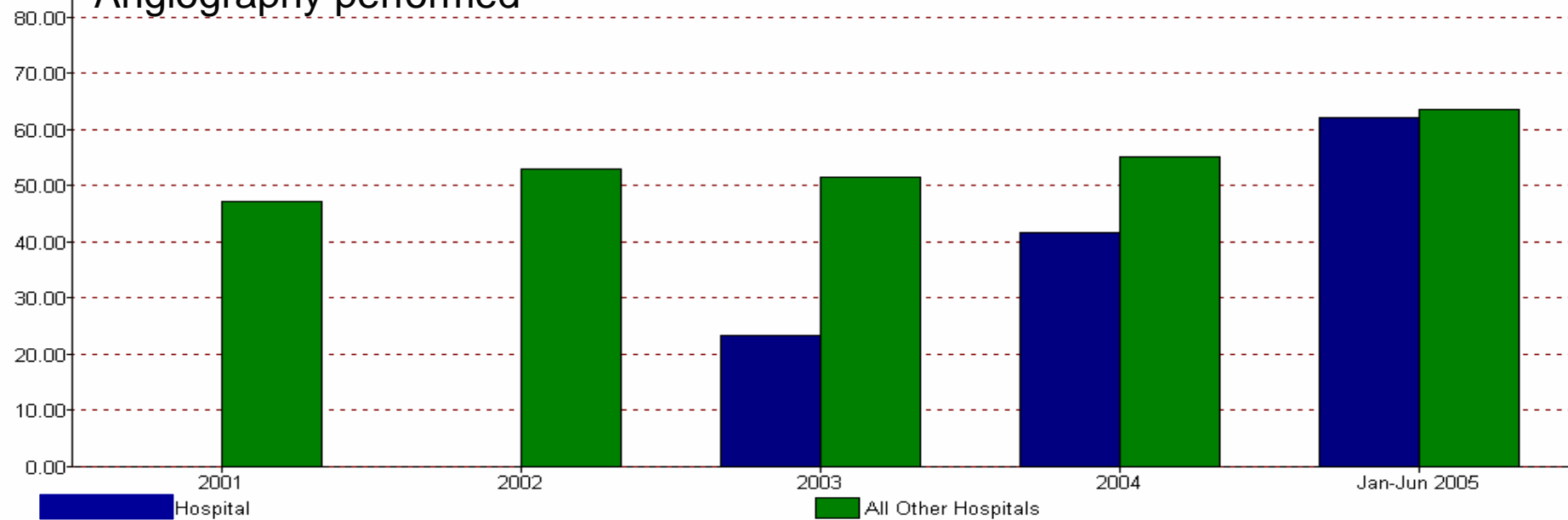
In-hospital cardiac mortality



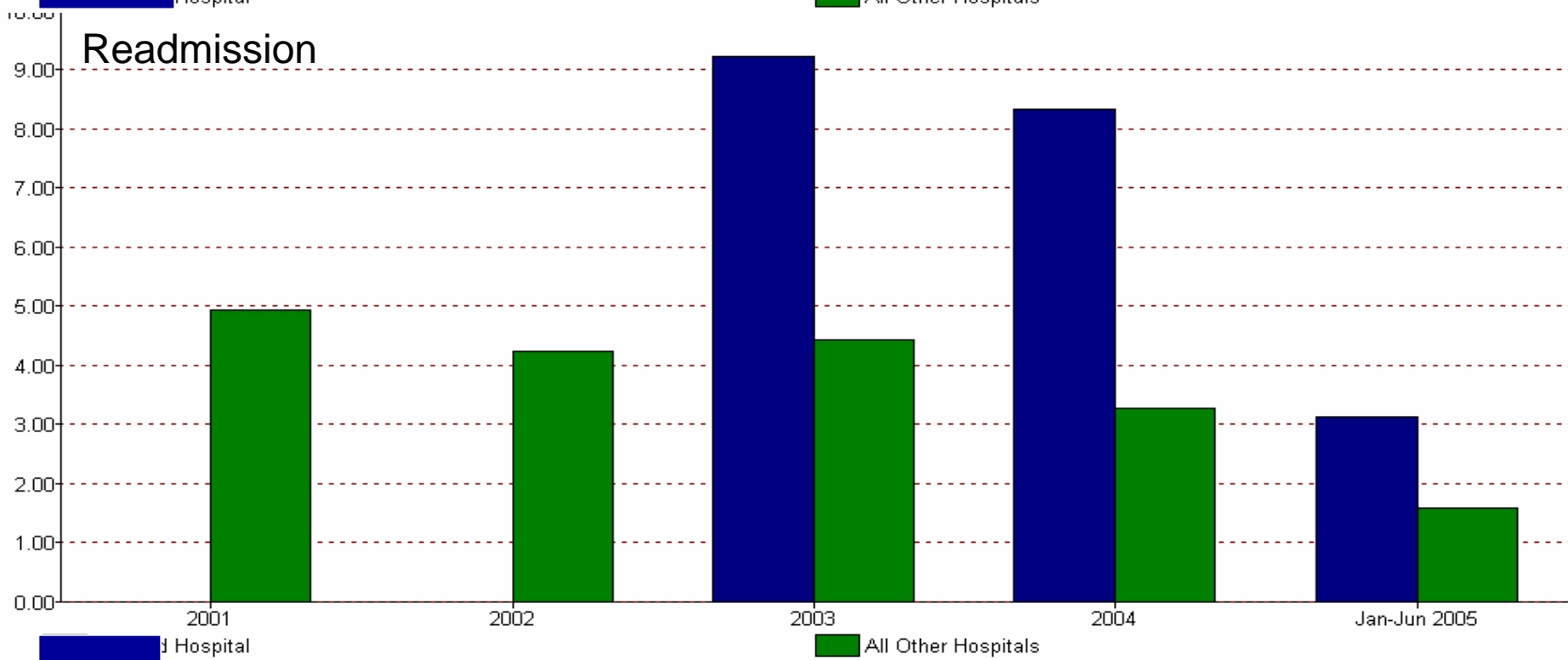
ACE inhibitors or ARBs on Discharge



Angiography performed



Readmission



	Cardiac Collaborative	VLAD
Purpose	Collaborative quality improvement	Risk management
Locus of control	Clinical	Central
Data	Clinical	Administrative, economic
Methodology	Analysis and learning Quality improvement process	Inspectorial No in-built quality improvement process
Specificity/selectivity	Selected, specific to patients treated by relevant processes	DRG specific, not clinically selective
Potential to change practice or behaviour through involvement	High, demonstrated	Probably low
Management style	Consensus, ownership by clinicians	Central authoritarian hierarchy Inspectorial
Cost	High	Low directly attributable cost, high local cost?

Question 1

- What information is needed to evaluate clinical performance?
- Data on performance is an essential part of evaluation, but needs to be relevant to the processes to be assessed

Question 2

- Can clinical governance be centralised and separated from operational clinical management?

Centralisation v Decentralisation

- Debate in general management and public administration literature
- Many dimensions
 - Political, public administration, social policy, economic, control, knowledge and learning
- Arguments based around knowledge and learning
 - Economic
 - Transaction cost economics
 - Sociologic
 - Resource based theory
 - Knowledge creation leads to capabilities
 - » eg systems of care
 - Social and intellectual capital

Government
Politics Policy Resources

Department
Resources, Controls

Hospital
management

Codes

Regulatory framework
Eg registration, qualification
Laws eg G & A Act

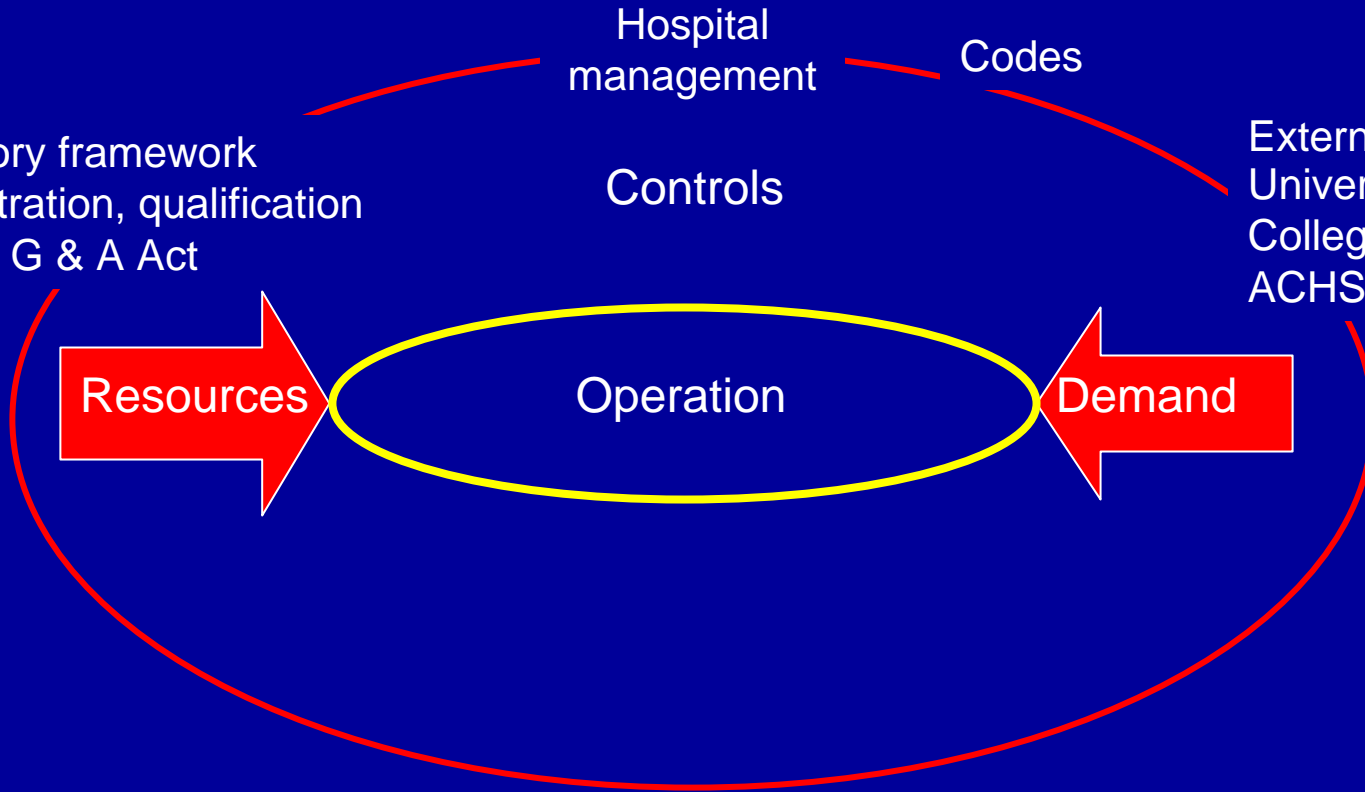
Controls

External controls
Universities
Colleges,
ACHS

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- A complex system, such as a professional organisation, is highly self organising
 - In such a system;
 - Internal controls are closely linked to the capabilities that drive the operating systems
 - Quality and safety are not independent of overall performance
 - Internal controls are at least as important as the external hierarchical controls
 - and
 - Interference with these internal controls by excessive external control can have significant unintended consequences

Knowledge based theory of the firm

Nickerson and Zender: Organization Science Nov - Dec 2004

- Capability determines the capacity of an organisation to perform effectively
- Capability depends on organisational knowledge

Knowledge based theory of the firm

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“the major knowledge-based task for a manager is not to organize to exploit *already developed* knowledge or capability” but to “organize to *efficiently generate* knowledge and capability”

Matching organisational structure and problem solving ability

- Organisations
 - Categorised as
 - Market (Private practice)
 - Authority based hierarchy (bureaucracy)
 - Consensus based hierarchy (professional firm or organisation eg hospital)

Matching organisational structure and problem solving ability

- Problems
 - Categorization according to
 - “Decomposability” (Complexity)
 - Number of knowledge sets and degree of interaction between the sets required to solve the problem
 - » Decomposable; low interaction, low knowledge exchange
 - » Non-decomposable; high interaction, high knowledge exchange
 - Solution method
 - Directional search
 - » guided by feedback or experience
 - » can be conducted by individuals or small groups
 - Heuristic or cognitive search
 - » evaluates the possible consequences of multiple solutions
 - » involves significant knowledge transfer and exchange

Correlation between problem type and governance form

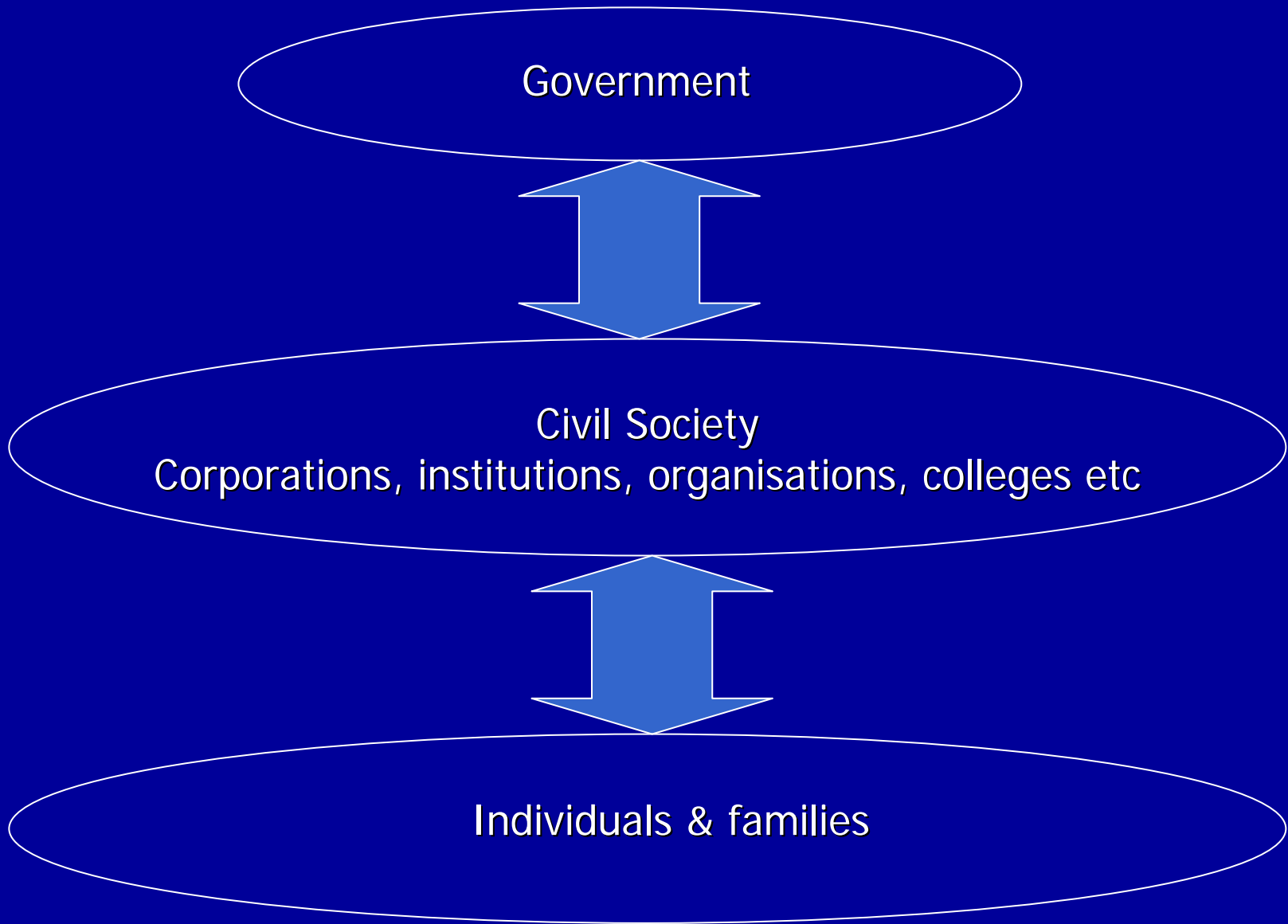
Type of problems	Need for knowledge transfer	Method of solution	Predicted governance form
Decomposable	Low	Directional	Market
Nearly decomposable	Moderate	Directional/ Heuristic, cognitive	Authority based hierarchy
Nondecomposable	High	Heuristic, cognitive	Consensus based hierarchy

Problem solving and management style

- A consensus based hierarchy is superior to an authority based hierarchy in solving complex problems and creating organisational capability
- Corollary; Organisations are likely to approach problem solving and select the problems they attempt to solve, according to their capability
 - It is much easier to measure crude death rates than to create clinical capability

Intellectual and social capital

- Intellectual capital
 - “The knowledge and knowing capability of ...an organization, intellectual community, or professional practice”*.
 - Created by the combination and exchange of knowledge between individuals
 - Conditions
 - Opportunity that is valued and exploited, motivation, combination capacity, imagination
- Social capital
 - Resources based on group membership, relationships, networks of influence and support
 - Dimensions;
 - Structural,
 - The opportunity for exchange and combination including the free flow of information
 - Relational
 - Interpersonal relationships, including trust
 - Cognitive
 - Shared knowledge, language and codes



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Question 2

- Can clinical governance be centralised and separated from operational clinical management?
- Clinical governance should be regarded as an integral part of clinical management, not a separate function, *because the internal controls and capabilities are interdependent*
- An analysis based on knowledge suggests that although centrally based systems may appear to give greater control, they may be ineffective

Conclusion

- Data on performance is an essential part of assessment, but needs to be relevant to the processes to be assessed
- Clinical governance should be regarded as an integral part of clinical management, not a separate function
 - because the internal controls and capabilities are interdependent
- An analysis based on knowledge suggests that although centrally based systems may appear to give greater control, they may be ineffective