Running a Successful Anesthesia Department:

Dr Mervyn Maze MB ChB, FRCP, FRCA, FMedSci

William K Hamilton Distinguished Professor of Anesthesia

Chair, Department of Anesthesia and Perioperative Care,

University California San Francisco

Running a Successful Anaesthesia Department: *The English Way!*

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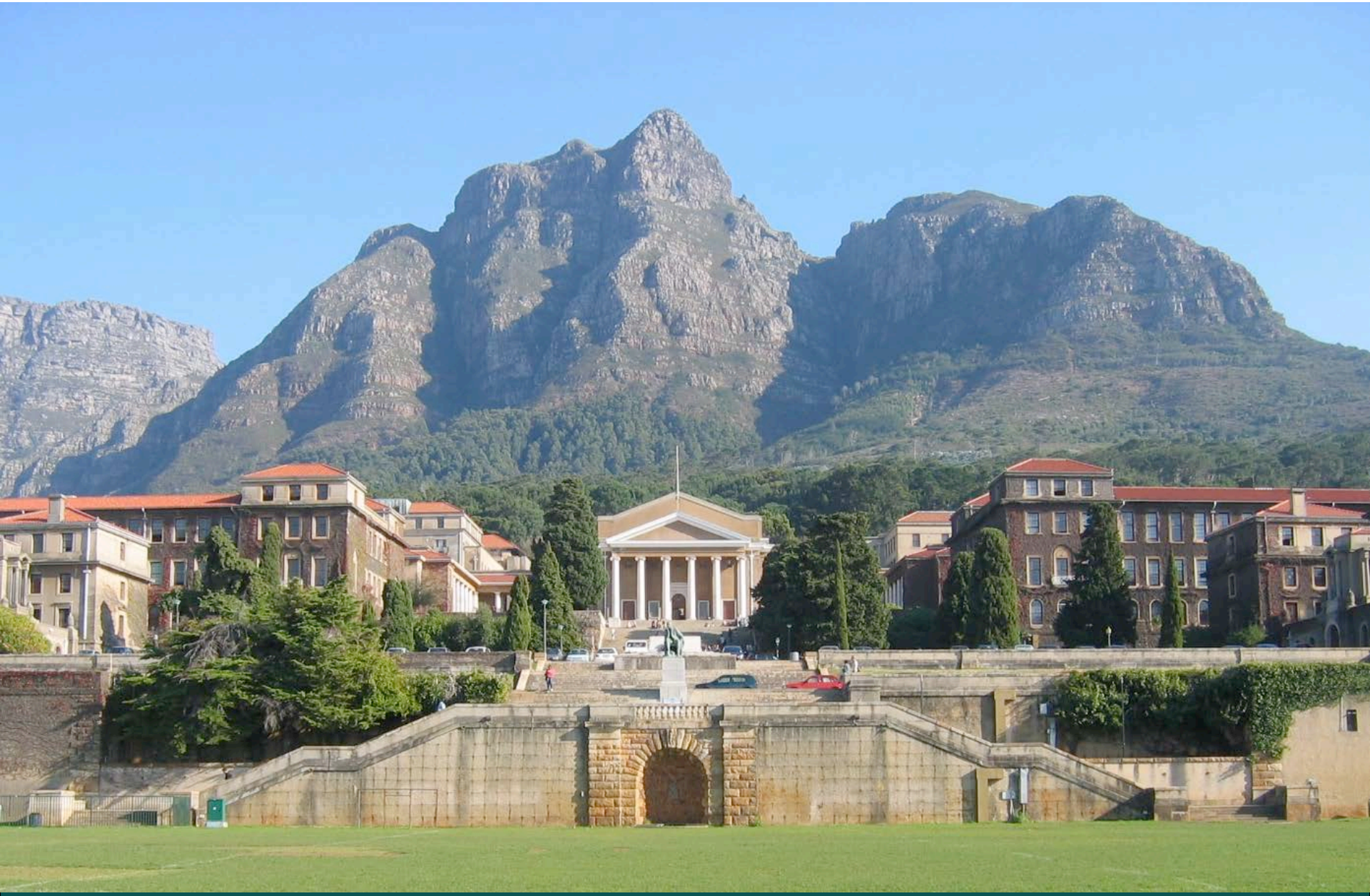
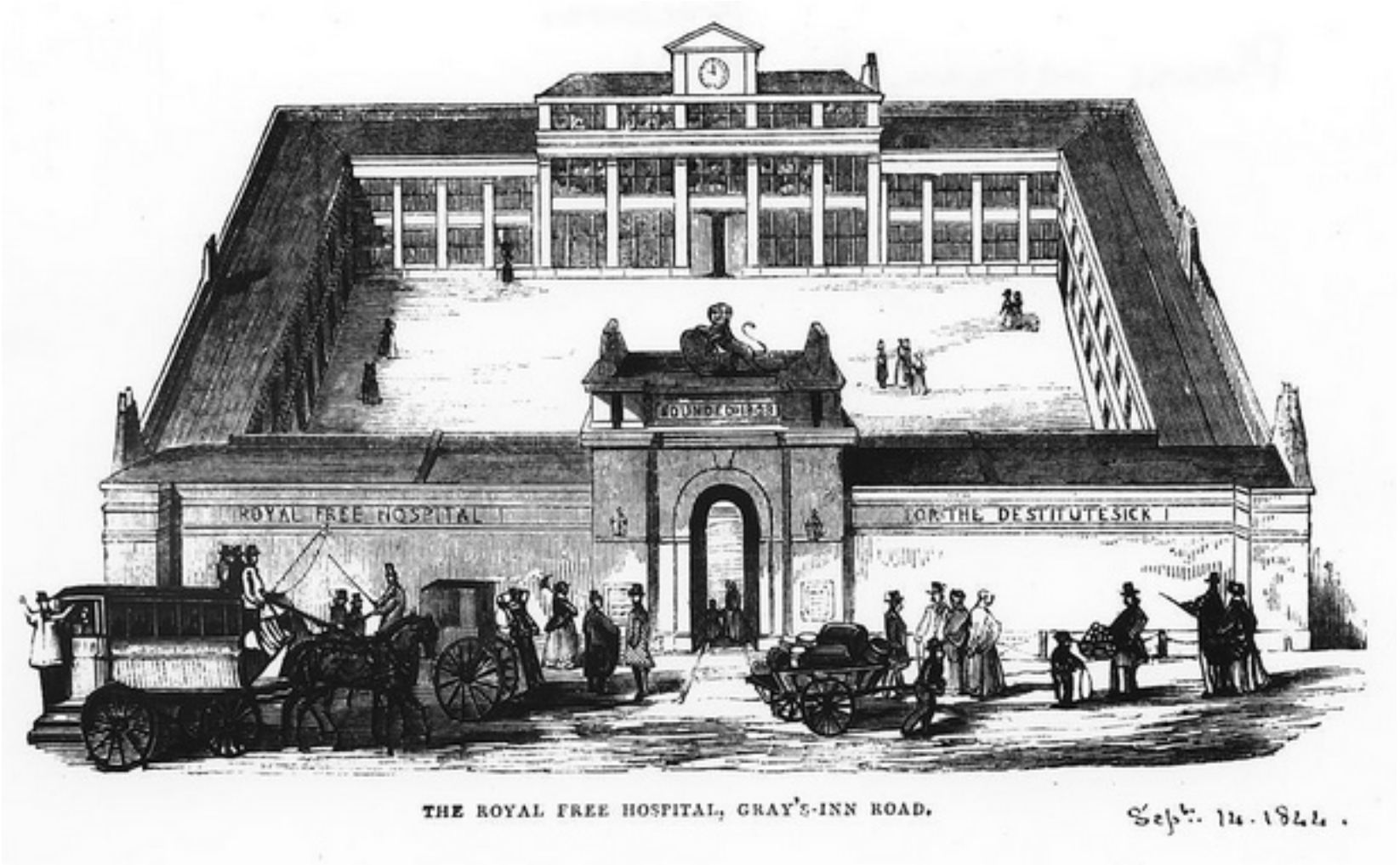
Everything you always wanted to know about UK Academic Anesthesia Departments but was afraid to ask!

- How are the Departments organized?
  - Clinical
  - Teaching/Training
  - Research
- How are the Departments funded?
- Is there anything that we can learn from the UK Departments that can enhance the success of Academic Departments in the US?





THE ROYAL FREE HOSPITAL, GRAY'S-INN ROAD.

Sept. 14. 1844.


SUSSEX WING


Royal Free Hampstead NHS
NHS Trust
Royal Free Hospital

Welcome to the

VA Palo Alto Health Care System

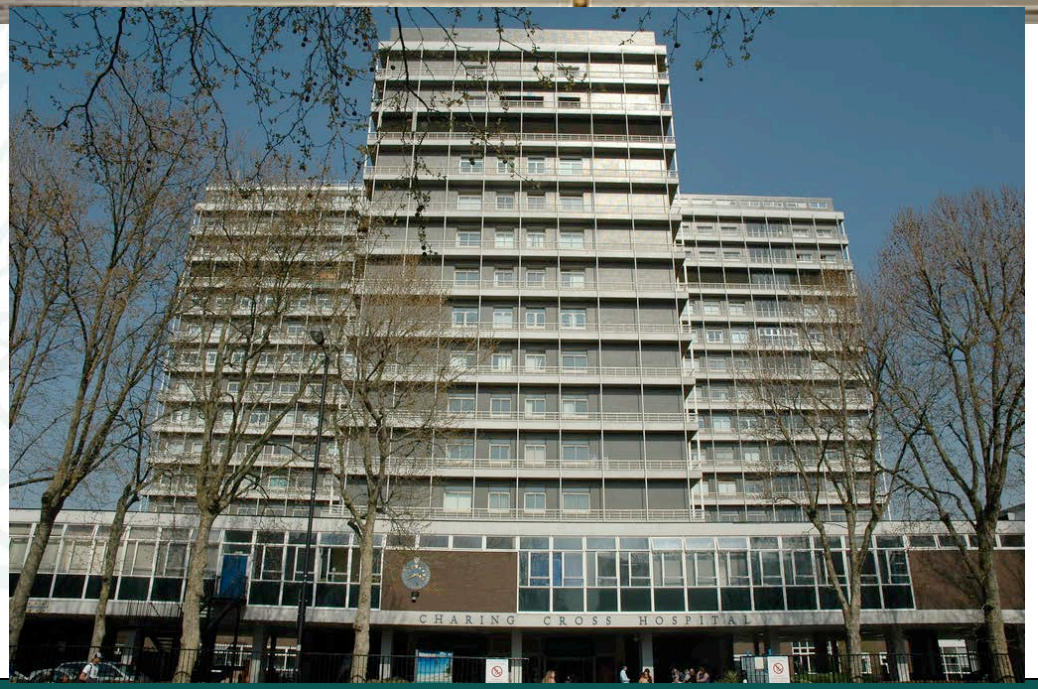
Department of Anesthesia and Perioperative Care

UCSF


CALIFORNIA

Hybrid Organization

- Medical School
  - Professor and head of a Department
  - Academic Staff
    - Personal Chair (also Professor but not “The Prof”)
    - Reader – *Associate Professor*
    - Senior Lecturer – *Assistant Professor*
    - Lecturer - *?*
    - Honorary Academic Titles for some Clinical Consultants
- Hospital
  - NHS Consultant
  - Honorary Consultant Title for Clinical Academic


CHARING CROSS HOSPITAL

The NHS Plan

A plan for investment
A plan for reform

Presented to Parliament by the
Secretary of State for Health
By Command of Her Majesty

July 2000

Deliver a Health Service

- designed around the patient
  - reduce waiting times
    - 3 months for OP appt/ 6 months for IP admission
  - reduce DOS Cancellations
- fit for the 21st century
  - Modernization
    - clean wards overseen by ‘modern matrons’
    - better hospital food
  - IT
- National Standards
  - National Institute of Clinical Excellence

National Institute for Health and Clinical Excellence (NICE) for CQI

- Reduce
  - Inequalities
  - Variations
- Independent, authoritative, evidence-based guidelines for
  - Prevention
  - Diagnosis
  - Treatment
    - Comparative effectiveness Research
- P4P based upon compliance and outcomes

•Visit www.nice.org.uk/guidance for:

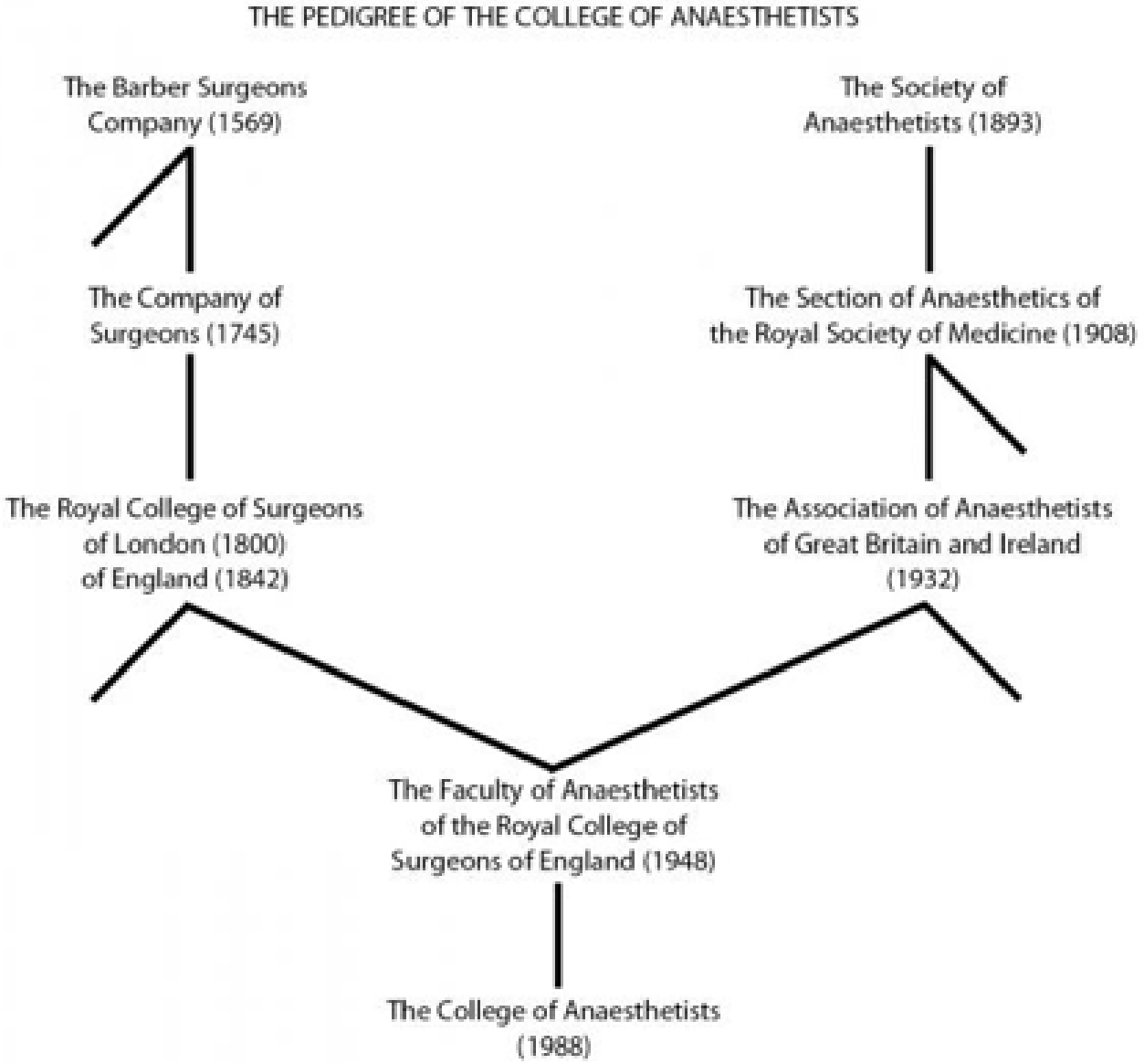
- the guideline
- the quick reference guide
- ‘Understanding NICE guidance’
- costing report and costing statement
- audit support and baseline assessment tool
- Program implementation advice
- online educational tools from BMJ Learning and Nursing Times

General Medical Council

Regulating Doctors; Ensuring Good Medical Practice

- Sets standards
  - Education
    - Undergraduate Education
    - Registration of Medical Graduates
    - Training of Specialists
    - Continuing Medical Education
  - Practice
    - Continuing demonstration of Competence
      - Revalidation of all 230K licensed doctors (>2012)
    - Fitness


DIVINUM SEDARE DOLOREM


THE PEDIGREE OF THE COLLEGE OF ANAESTHETISTS
The Barber Surgeons Company (1569)
The Society of Anaesthetists (1893)
The Company of Surgeons (1745)
The Section of Anaesthetics of the Royal Society of Medicine (1908)
The Royal College of Surgeons of London (1800) of England (1842)
The Association of Anaesthetists of Great Britain and Ireland (1932)
The Faculty of Anaesthetists of the Royal College of Surgeons of England (1948)
The College of Anaesthetists (1988)

Royal College of Anaesthetists

- Mandate
  - Setting standards for clinical care
  - Establishing the standards for training
    - Anaesthetists
    - Intensivists
    - Pain Specialists
  - Setting and delivering exams
  - Continuing Medical Education

THE LONDON DEANERY
in association with the Eastern and Kent, Surrey & Sussex (KSS) Deaneries

INTERVIEWING SCORE SHEET – SPECIALIST REGISTRAR IN ANAESTHETICS

(Notes should be made where a candidate scores 0 indicating that insufficient evidence that a criteria has been met in order to explain the reason for this. It is not necessary to write in each box unless a score of 0 has been given or unless a panel member wishes to make a particular comment. these notes form a part of the permanent record of the appointment process)

Maximum score for each criterion is 2 (Range 0 - 2)	**Notes**	**Score**
Possession of Certificate of Satisfactory Completion of SHO training		**YES / NO**
Clinical experience, knowledge and skills		
Competent to work without direct supervision where appropriate		
Awareness of own limitations		
Experience of working in multi-professional teams		
Management experience		
Demonstrates breadth of awareness in and outside specialty and medicine		
Ability to organise own workload and to prioritise clinical need		
Organisation, Planning and Clinical Governance		
Knowledge and use of evidence based practice		
Experience of and involvement with Clinical audit		
Understanding of clinical risk management		
Knowledge of clinical governance		
Academic, research and teaching		
Understanding of the principles of research		
Presentations, publications etc		
Teaching - exposure to different groups /teaching methods		
Personal skills and career intentions		
Communication skills		
Interpersonal skills		
Demonstrates clear logical thinking / analytical approach		
	Total (max 32 points)	

THE LONDON DEANERY
in association with the Eastern and Kent, Surrey & Sussex (KSS) Deaneries

INTERVIEWING SCORE SHEET – SPECIALIST REGISTRAR LEVEL ACADEMIC CLINICAL FELLOW IN ANAESTHETICS

(Notes should be made where a candidate scores 0 indicating that insufficient evidence that a criteria has been met in order to explain the reason for this. It is not necessary to write in each box unless a score of 0 has been given or unless a panel member wishes to make a particular comment. these notes form a part of the permanent record of the appointment process)

Maximum score for each criterion is 2 (Range 0 - 2)

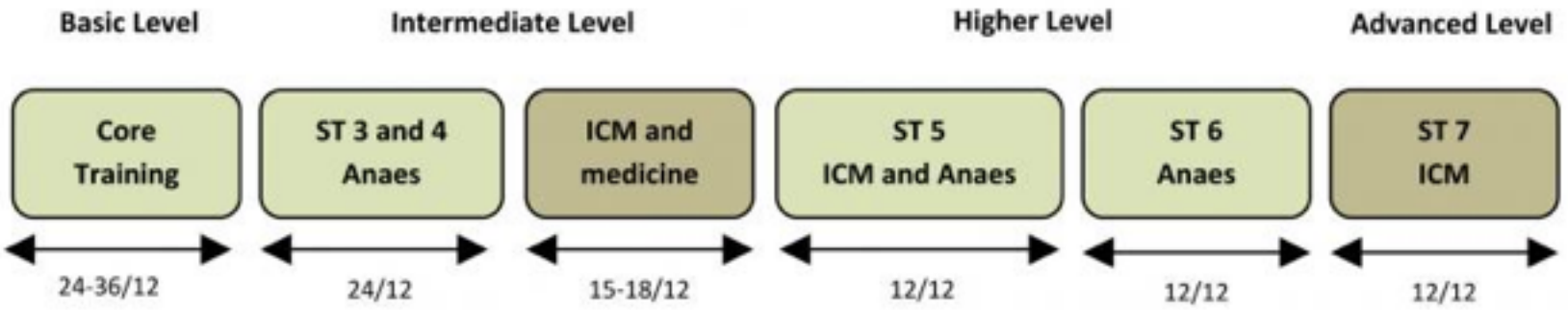
	Notes	Candidate's Score
Academic, research and teaching		
Demonstrable high level of interest in the academic aspects of the specialty (teaching and research)		
Understanding of the principles of research		
Familiarity with publications and potential developments in the specialty		
Undergraduate prizes and honours		
Presentations		
Abstracts and publications		
Teaching - exposure to different groups /teaching methods		
Practical teaching skills		
Knowledge and use of evidence based practice		
Exposure to difference research methods eg statistics, data management		
Understanding of research funding		
Personal skills and career intentions		
Clarity of career aspirations		
Understanding of how academic training will provide opportunities for career development		
Potential for development as a clinical academic in research		
Demonstrates clear logical thinking / analytical approach		
	Total (max 30 points)	

So you want to be an Anaesthetist?

- Foundation Training – 2 year
  - *– Internship/Sr Internship*
- Specialty Training
  - – Basic Level – 2 years
    - Initial Assessment of Competency
    - Primary Exam
    - *CA1-2*
  - – Intermediate Level – 2 years (FRCA)
    - *CA3*
  - – Higher Level – 2 years
    - *Electives*
  - – Advanced Level – 1 year – **CCT***
    - *Clinical Fellowship*

Standard Training in Anaesthetics

Training in Anaesthetics and ICM



Working Time Regulations

- 48 h/week averaged over 17 weeks
- Excluding
  - Breaks, when no work is done
  - Normal travel to and from work
  - On call away from the workplace
  - Evening and day-release classes unrelated to work
  - Unpaid overtime for which you have volunteered


HARLEY
STREET W1
CITY OF WESTMINSTER

Lord Ara Darzi – “The Dark Paddy of Paddington”

High Quality Care For All

NHS Next Stage Review Final Report

Presented to Parliament
by the Secretary of State for Health
by Command of Her Majesty

June 2008

Bringing Quality to the Heart of the NHS

- Getting the basics right first time, every time
- Systematically measure and publish information about the quality of care
- Funding for hospitals that treat NHS patients reflect the quality of care that patients receive
- Easy access for NHS staff to information about high quality care
- Creating new partnerships between the NHS, universities and industry
  - Academic Health Science Centers

Academic Health Sciences Center

- Health Provider and Academic Partnership
  - joint governance
- Focus on world-class
  - Research
  - Teaching
  - Patient Care
- Promote the application of new discoveries
  - *"….where breakthroughs are made and passed directly on to patients on the ward."*
- Competition for selection of 5 AHSC's

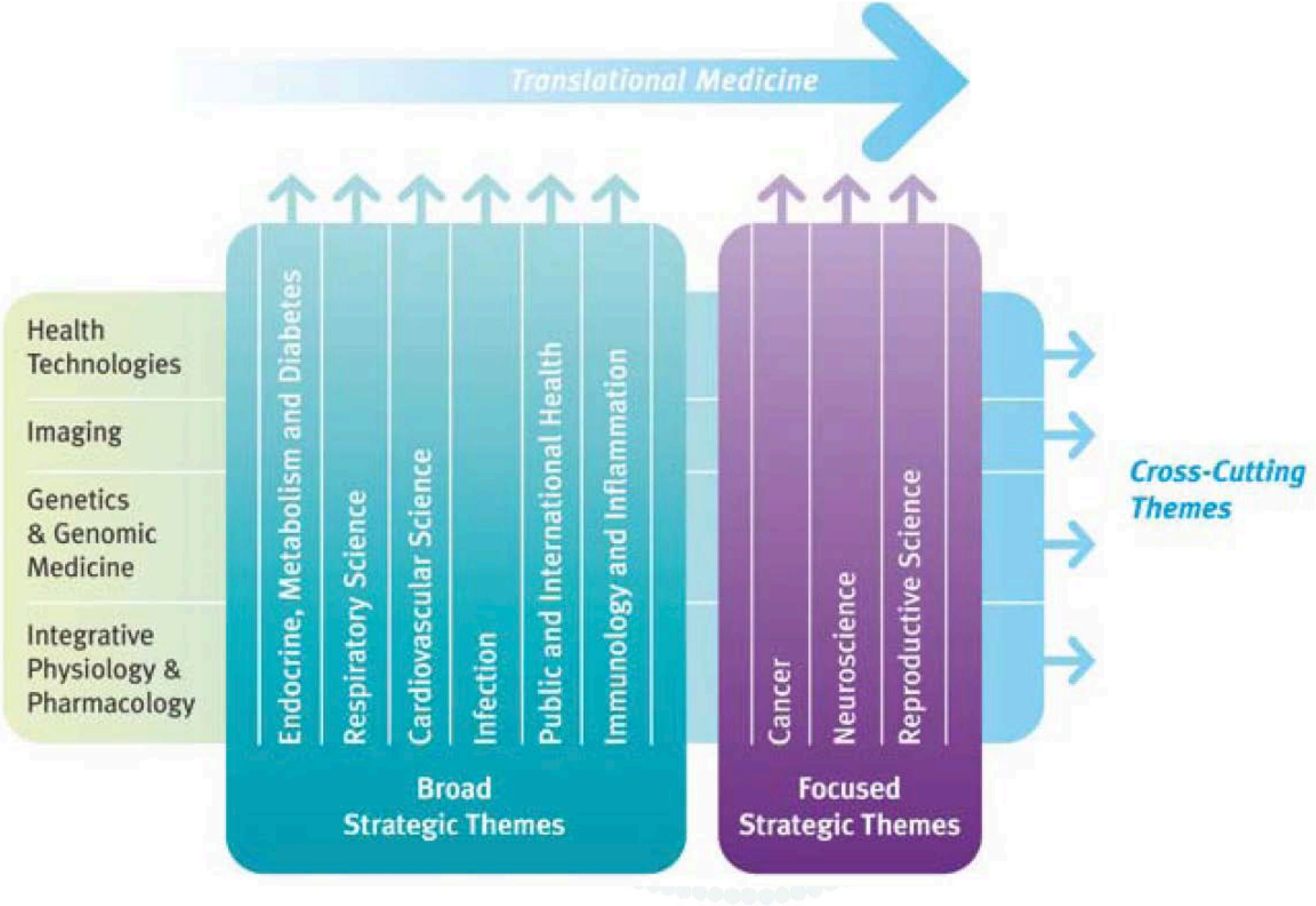
The Vision for the Academic Health Science Centre

- Become a **top five global** academic health science center
- Develop a Healthcare Network
- Integrate and Coordinate Academic and Clinical Activities
  - Directorate
    - Research
    - Education
  - Seven autonomous Clinical Program Groups (CPG)

The Blueprint for Integrating Clinical Services and Academic Departments

CPG	Director	Academic Lead	Related Academic Divisions
1 Medicine	Dr Gill Gaskin	Professor Jonathan Weber	Medicine
2 Surgery and Cancer	Mr Justin Vale	Professor Mervyn Maze	SORA*; Clinical Sciences Centre (CSC)
3 Specialist Services	Professor James Van Dellen	Professor Lefkos Middleton	Neuroscience and Mental Health; SORA; CSC; Kennedy Institute of Rheumatology
4 Circulation Sciences and Renal Medicine	Professor Nick Cheshire	Professor Tony Newman Taylor	National Heart and Lung Institute; Medicine; CSC
5 Women and Children	Mr Keith Edmonds	Professor John Warner	SORA, Medicine
6 Clinical and Investigative Sciences	Professor Martin Wilkins	Professor Martin Wilkins	Investigative Science; CSC
7 Preventative Interventional Public Health	To be appointed Summer 2008	Professor Elio Riboli	Epidemiology, Public Health and Primary Care

* Surgery, Oncology, Reproductive Biology and Anaesthetics. A full list of specialties per CPG is given in Appendix 1.


Translational Medicine
Health Technologies
Imaging
Genetics & Genomic Medicine
Integrative Physiology & Pharmacology
Endocrine, Metabolism and Diabetes
Respiratory Science
Cardiovascular Science
Infection
Public and International Health
Immunology and Inflammation
Broad Strategic Themes
Cancer
Neuroscience
Reproductive Science
Focused Strategic Themes
Cross-Cutting Themes

CPG	Specialties
Medicine	• Accident and emergency • Acute medicine • Elderly medicine • Gastroenterology and hepatology • Diabetes and endocrinology • Infectious diseases and infection control • HIV and genitourinary medicine • Dermatology • Respiratory medicine
Surgery and Cancer	• Acute surgery • Breast surgery • Gastrointestinal and hepatobilary surgery • Endocrinological and bariatric surgery • Urological surgery • Medical oncology • Clinical oncology
Specialist Services	• Anaesthesia, critical care and theatres • Neurology and neurosurgery • Pain medicine and palliative care • Medical and surgical ophthalmology • Ear, nose and throat, and head and neck surgery • Maxillo-facial surgery and dentistry • Plastic and reconstructive surgery • Orthopaedic surgery • Rheumatology • Sports medicine
Circulation Sciences and Renal Medicine	• Cardiology, cardiothoracic and thoracic surgery • Vascular medicine (including systemic rheumatology, lipid medicine and hypertension) and vascular surgery • Renal medicine and transplantation
Women's and Children's	• Obstetrics, reproductive and antenatal Medicine • Gynaecology • Neonatology • Paediatric medicine, surgery and critical care • Paediatric haematology and bone marrow transplantation
Clinical and Investigative Sciences	• Imaging and interventional radiology • Clinical and laboratory haematology • Biochemistry • Histopathology, cytology and immunology • Laboratory microbiology • Molecular medicine and genetics • Therapies • Medicines • Clinical trials

House of Commons

Committee of Public Accounts

Achievement of foundation trust status by NHS hospital trusts

"We are particularly alarmed that the healthcare system in London has been allowed to deteriorate despite its problems having been known about for many years. At least half of the acute trusts in London are not viable in their current form."

Imperial College Healthcare Trust's plan to become Fiscally Solvent and achieve Foundation Trust status

- Shed Costs
  - strict mission-based accounting
    - Pay Clinical Academics on a "per session" basis
    - University pay for Clinical Academics' Admin time
- Retain Revenue
  - Withhold payment of teaching allocation to non-ICHT training locations
    - Pediatrics
    - Cardiorespiratory Medicine

Funding for University

- Higher Educational Funding Council for England
  - Formula-driven Allocations
    - Research
    - Teaching
  - Special Infrastructure Fund
- Tuition Fees
- Full economically-costed Sponsored Research
  - Directly-incurred costs
  - Directly-allocated costs
  - Indirect Costs
- Innovation/Royalties/Endowment

Components of HEFCE's Block Grant to HEI's

- Teaching - 63%
- Research - 20%
- Special Projects - 7%
- Capital Projects - 10%

TOTAL FOR 2005-06 = £6332 million

$R=\{RAE[m+n+f(g+h+I+k)]\}r$

RAE scores and corresponding weightings are:

5 = 2.793

5* = 3.357

Faculty-wide = 3.24

f = Scaling factor = 1/cost of Research Assistant(£34.25K)

g = 1.4 x £K staff expenditure on research council grant

h = 1.67 x £k all expenditure on UK-based charities grants

i = 1.2 x £k staff expenditure on EU government contracts

k = 1.0 x £k staff expenditure on other contracts

m = 1.25 x RAE active staff

n = (1.45 x non-clinical + 2.0 x clinical) PhD student load

r = research capitation

Research Activity Exercise (RAE) - 2008

- What is it?
- How to do it?
- What are the criticisms?
- How did we do at Imperial College?

What is the RAE?

- Evaluation of the quality of research undertaken by British higher education institutions
- Conducted at 5 yearly intervals
- Informs the allocation of quality-weighted research funding

How the RAE was conducted in 2008

- Assess
  - Individuals
    - Research outputs
    - Measures of esteem
  - Institution's research environment
- Score on 4 point quality scale
  - 4* = World-leading
  - 3* = Internationally Excellent
  - 2* = Recognized Internationally
  - 1* = Recognized nationally
  - Unclassified

Criticisms of the RAE

- Competence of the assessors
  - Outside of the their area of specialization
- Using information not included in the submission
- Permanently-contracted University teachers (*Lecturers*) are not returned or scored as “Unclassified”
- Scoring is not a linear scale

Teaching Allocation from HEFCE

$$T = at + bt + ct + dt + et + ft + gt$$

a = 1.00 x non-clinical undergraduate teaching load

b = 1.40 x clinical undergraduate teaching load

c = 1.33 x intercalated BSc undergraduate teaching load

d = 1.33 x taught non-clinical postgraduate teaching load

e = 1.86 x taught clinical postgraduate teaching load

f = 0.70 x research non-clinical postgraduate teaching load

g = 0.98 x research clinical postgraduate teaching load

t = Teaching Capitation

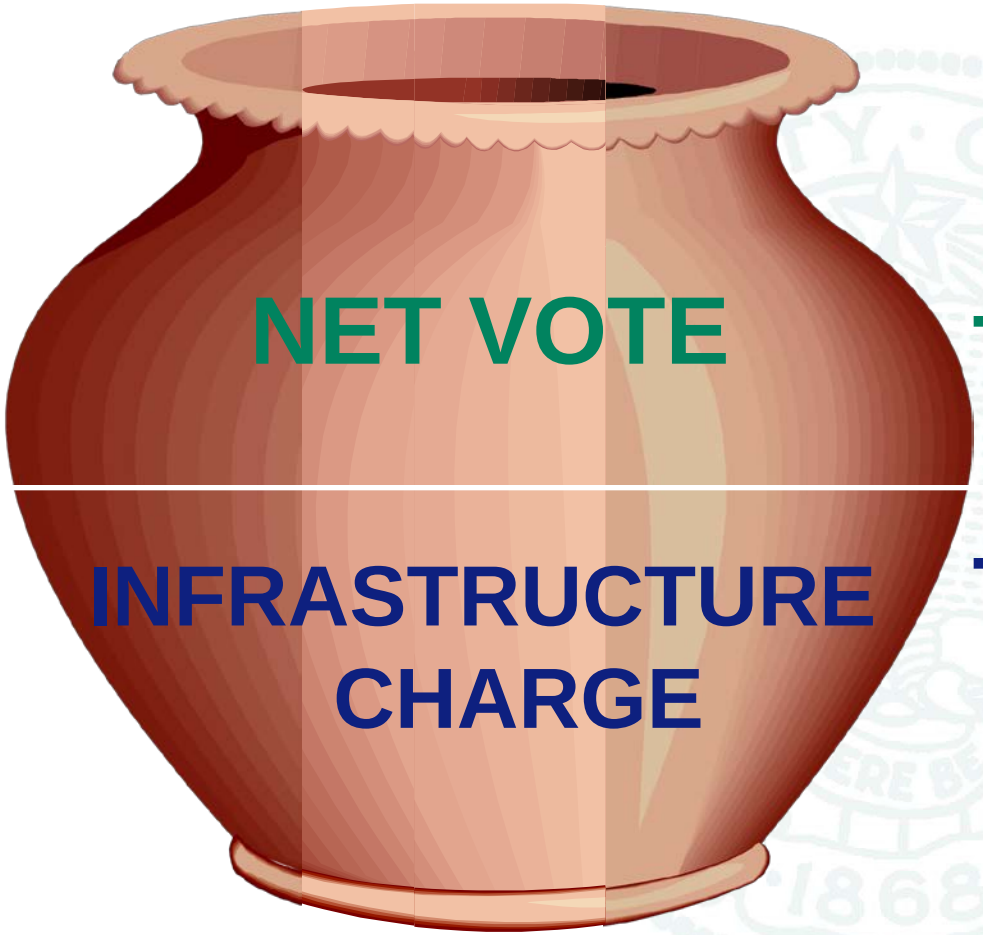
Full Economic Costing of Research

- Directly incurred costs (research staff, travel, consumables, technical/clerical staff costs, non-staff costs)
- Directly allocated costs (PI and CoI time and costs, estates costs, charges for lab technicians and major research facilities)
- Indirect costs (general office and basic lab consumables, library services, typing/ secretarial)

Why undertake Costing Research

- Set the appropriate price
- Understand how much has to be subsidized
- Establish where the subsidy comes from
- Decide what sponsored research is of high enough value to want to subsidize

Dividing the Gross Vote Formula (R+T) Pot



→ Faculties

→ Support Services

Tax to pay for Support Services

Total Activity Charge

@ 9.0% Turnover

37% of total

Staff Charge

@ 8.5% of total expenditure

19% of total

Student charge

@ £1430 X weighting for the student

17% of total

Space Charge

@£225/sq m

27% of total

Faculty Development - Annual Appraisal

- Performed Jointly with NHS (Clinical Lead)
- Quantitative
- Qualitative
- Personal Development Plan

01 October 1982	1.00

Category	Minimum Requirement	Achievement	Pass Minimum Requirement
Research Volume (07.08)	£ 126,000	£ 111,747	FALSE
UG Teaching (weighted 07.08)	30	143	TRUE
PGR Supervision (FTE) at 31/12/08	2	1.1	FALSE
BSc Project Supervision (07.08)	1	2.0	TRUE
Journal Publication (2005-2008 average)	3	6	TRUE

Other Key Stats

Actual UG Teaching Contact Hours listed (07.08)	10	limited to available data from Non Clinical UG Teaching Contact Hours (MBBS, B Med Sci, GEP)	
PGT Course Leader			
No of FTEs for PGT Leadership (08.09)	0		
Total No. of Submissions in 07.08 and 08.09 as Lead PI	8	Quality Funder Proportion	63%
No of Projects awarded in 07.08 and 08.09 as Lead PI	3	Total Value of these Projects	£ 20,300
Indicative Award Success Rate (5 Year Period) by Value as Lead PI	17%	Total Awarded (5 years)	£ 290,063
No of Journals Published 2006	10	Total Pending (max 1 year from submission)	£ 1,666,303
No of Journals Published 2007	8	Total Declined (5 years)	£ 1,345,657
No of Journals Published 2008	1		
No. of Journals Published 2009 (so far)	0		
Returned in 07.08 RAE as Active?	YES		

What Lessons Can One Learn from the UK

- Be prepared to be a manager of CHANGE
- Ideal size of an Institution is predicated by its purpose
- Ideal size of a Department is one that can contain all its diverging activities and interests under a common mission
- UK Trainees are clinically adept
- Research Costing should be understood before signing off on a grant application

Delivery of Clinical Care

- NHS is the ultimate ACO with a single EMR
  - GP (*PCP*)
    - commissions care
    - coordinates medical and surgical homes
- Provision of anesthetic care is dictated by
  - holistic view of perioperative episode
  - involvement where its provider can bring value
  - quality trumping quantity

Picker – Patient Satisfaction Survey

Inpatient survey 2007

St Mary's NHS Trust

Operations and procedures

Did a member of staff explain the risks and benefits of the operation or procedure?

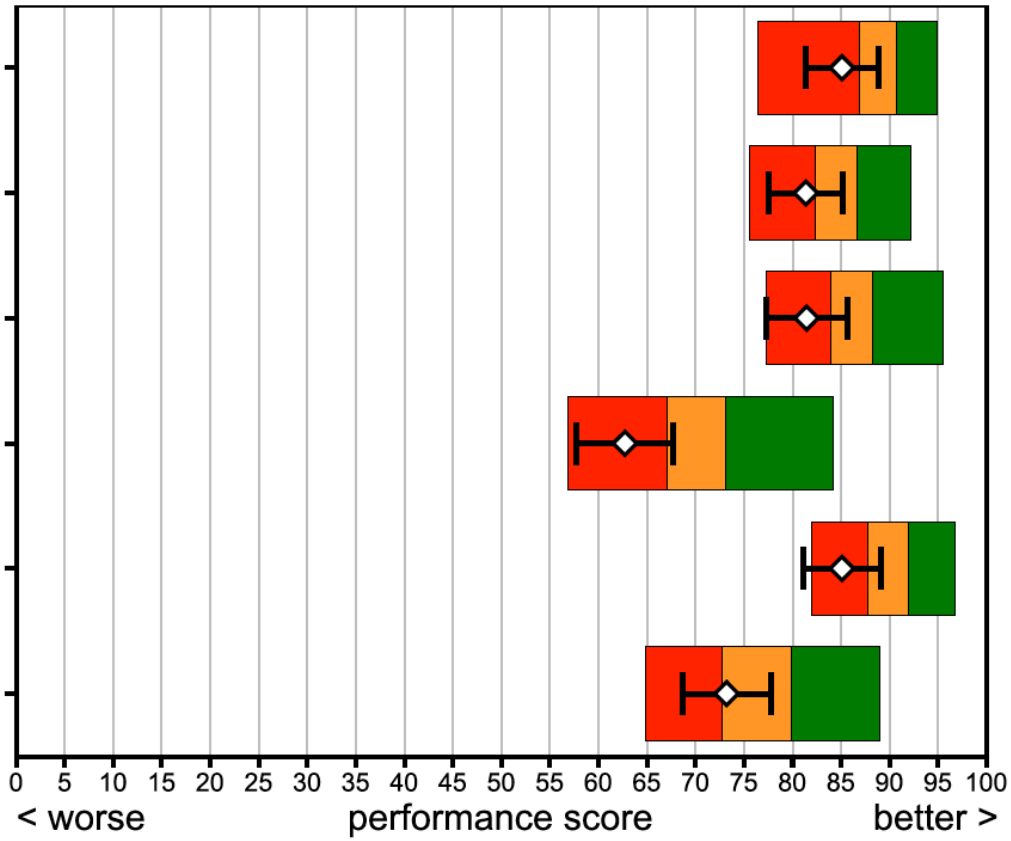
Did a member of staff explain what would be done during the operation or procedure?

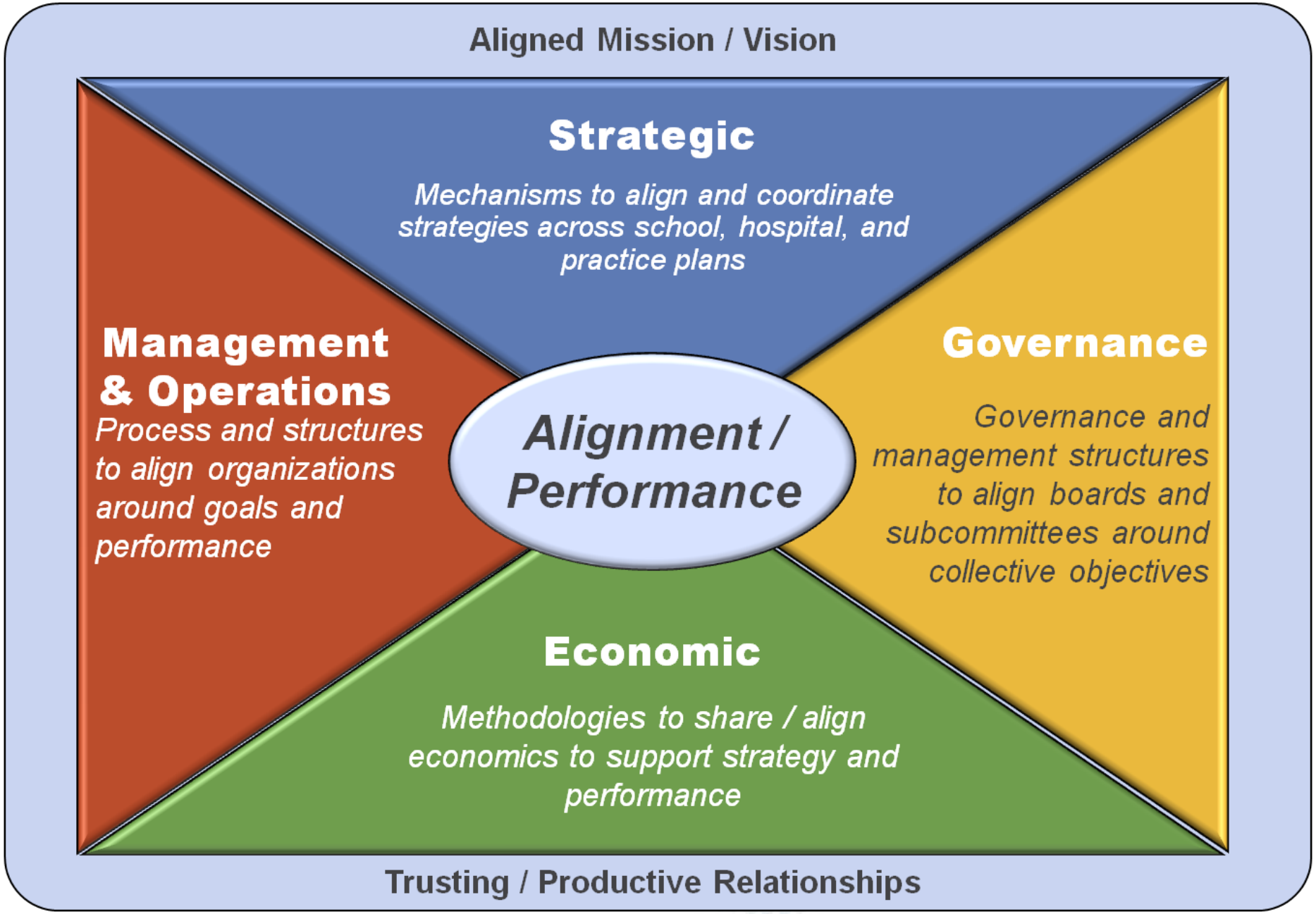
Did a member of staff answer your questions about the operation or procedure?

Were you told how you could expect to feel after you had the operation or procedure?

Did the anaesthetist explain how he or she would put you to sleep or control your pain?

Afterwards, did a member of staff explain how the operation or procedure had gone?




Aligned Mission / Vision
Strategic
Mechanisms to align and coordinate strategies across school, hospital, and practice plans
Management & Operations
Process and structures to align organizations around goals and performance
Alignment / Performance
Governance
Governance and management structures to align boards and subcommittees around collective objectives
Economic
Methodologies to share / align economics to support strategy and performance
Trusting / Productive Relationships