

Hong Kong College of Community Medicine
Administrative Medicine Part I Examination 2004

Key Points of Questions

Paper IA

Question 1

1a) Relative risk

$$= \frac{\text{Incidence of disease in exposed group}}{\text{Incidence of disease in non - exposed group}}$$

$$= \frac{180}{2112} \div \frac{316}{7888}$$

$$= 0.085 \div 0.040$$

$$= 2.13$$

===

1b) Attributable risk

$$= \text{Incidence of disease in exposed group } \textit{minus} \\ \text{Incidence of disease in non-exposed group}$$

$$= (0.085 - 0.04)$$

$$= 0.045$$

=====

1c) Population attributable risk percent

$$= \frac{(\text{Incidence in total population}) - (\text{incidence in non exposed group})}{\text{Incidence in total population}}$$

$$= \frac{0.0496 - 0.04}{0.0496}$$

$$= 19.3\%$$

=====

Hong Kong College of Community Medicine
Administrative Medicine Part I Examination 2004

Key Points of Questions

Paper IA

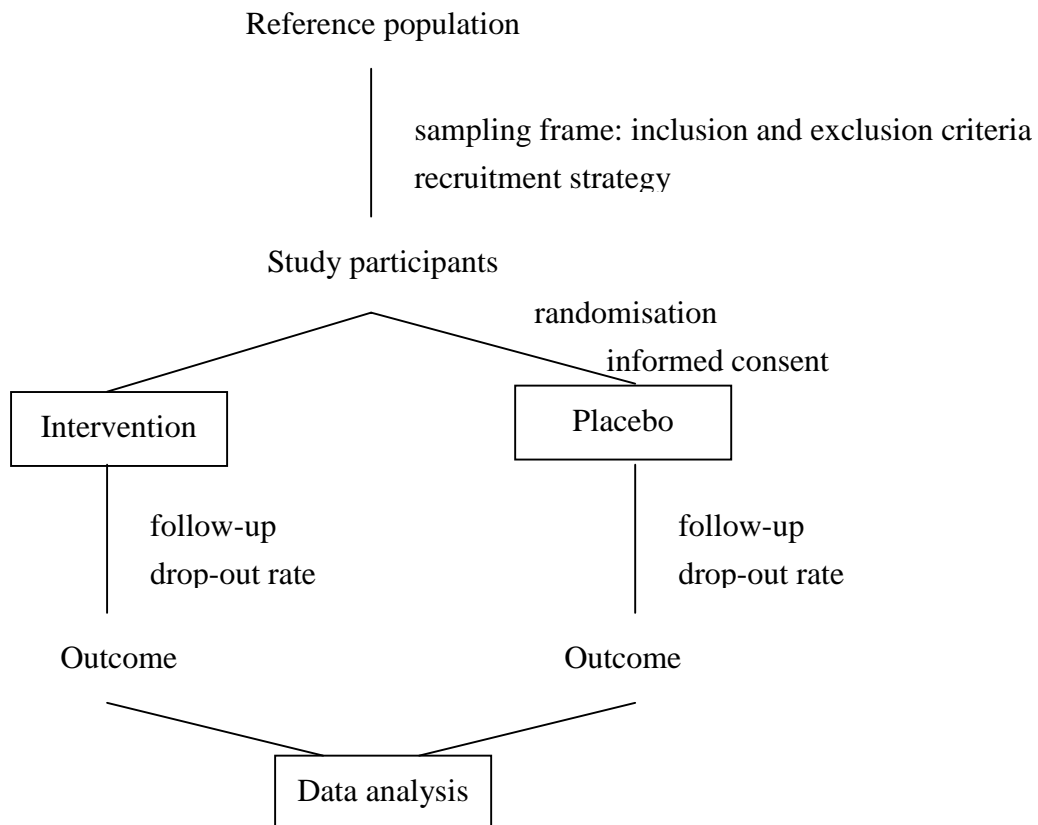
- 1d) The PAR is the percentage of Coronary Heart Disease (CHD) in the male population that can be attributed to cigarette smoking. In this instance, 19.3% of CHD in men aged 50 years and above are cigarette smoking. This indicates that prevention of cigarette smoking may lead to substantial reduction in CHD in this population. In this context, preventive programme such as smoking cessation services should be accorded priority in resource allocation. This is a better strategy than earmarking all resources to curative services such as increasing intensive care and other medical care intervention.

Key Points of Questions

Paper IA

Question 2

- 2 a) i. Define study objectives
ii. Set entry criteria for study, including age, and criteria for "osteoporosis"
Set exclusion criteria
iii. Determine sample size and power of the study. Determine blinding method. Set sampling frame and recruit subjects
v. Obtain informed consent
vi. Secure, i.e. fail-safe, method of randomization e.g. randomized according to pre-sealed envelopes for either intervention or placebo arm
vii. Set criteria for outcome measure i.e. hip fracture
viii. Set methods to ascertain hip fracture by hospital records
ix. Follow up patients and ensuring low drop out
x. Perform data analysis



Hong Kong College of Community Medicine
Administrative Medicine Part I Examination 2004

Key Points of Questions

Paper IA

- 2 b) Randomisation is a process to eliminate selection bias of study participants. The chance of an individual being allocated to either the intervention or placebo arm is independent of anything that may influence the results.
- 2 c) The preferred method is "intention-to-treat", which is a method to take account of subjects who have dropped out of clinical trials. In the intention-to-treat analysis, all eligible patients, regardless of compliance with protocol, would be included in the analysis of results. This provides a more valid assessment of treatment efficacy as it relates to actual clinical practice.

Hong Kong College of Community Medicine
Administrative Medicine Part I Examination 2004

Key Points of Questions

Paper IA

Question 3

"Must" points

1. "Clinical Governance" is a term borrowed from the concept of "Corporate Governance" in the commercial sector
2. Through clinical governance, the governing body of a health care provider is held accountable to its patients and the public for the quality of its health care services and the safety of patients under its care
3. Quality of health care services has different dimensions all of which should be addressed when practicing clinical governance
4. Implementing clinical governance at the hospital level involves organization-wide cultural change
5. The key elements of successful implementation include top level commitment, effective organizational structure design for clinical governance, selection of key result areas with well defined and measurable process and outcome indicators, regular reporting of results and most importantly, involving clinicians as champions for clinical governance.

"Should" points

1. The dimensions of health care quality should include clinical effectiveness, economic efficiency, access to service and patient safety
2. Some methodologies for improving clinical quality, such as Quality Assurance and Continuous Quality Improvement (CQI)
3. Training for clinicians on skills related to clinical governance, such as those for clinical audits and complaint management
4. The desirability and use of clinical protocols and "care tracks" agreed upon by all clinicians for quality assurance purpose
5. Continuous monitoring of health care quality by the governing body

"Could" points

1. Social acceptability mentioned as one of the quality dimensions
2. The use of routinely captured data for quality monitoring, and the value of IT
3. Securing of resources for implementing clinical governance by governing body
4. Non-punitive incident reporting mechanism to encourage early detection of risks

Hong Kong College of Community Medicine
Administrative Medicine Part I Examination 2004

Key Points of Questions

Paper IA

5. Competency and participation in clinical governance activities as part of clinical staff performance appraisal
6. Any other valid points not mentioned above

Hong Kong College of Community Medicine
Administrative Medicine Part I Examination 2004

Key Points of Questions

Paper IA

Question 4

"Must" points

1. QALYs as units for measuring health status combining morbidity and mortality
2. At least one method of measuring QALYs is mentioned
3. The compilation of "QALYs league table" for prioritization purpose
4. The use of scarce resources for services producing highest QALYs gain would be both efficient and equitable
5. The measurement of QALYs is value-laden, and will differ when different groups of people undergo the rating process
6. The use of QALYs for resources allocation may disadvantage the elderly and those with "incurable" chronic illnesses

"Should" points

1. The advantages of QALYs as a reliable, valid and meaningful cost-utility measuring tool for economic appraisal of health care interventions
2. A second method of measuring QALYs is mentioned
3. "QALYs" alone as yardstick for resources utilization fails to address the issue of externality of certain health care interventions
4. "QALYs" does not touch on clinical research and professional training, both contributing to health care and requiring resources but may not be disease oriented

"Could" points

1. The mentioning of the third method of measuring QALYs
2. The use of QALYs in the Oregon explicit rationing model in USA
3. The description of DALYs and comparing it with QALYs with reference to health care efficiency and equity
4. Any other valid points not mentioned above

Hong Kong College of Community Medicine
Administrative Medicine Part I Examination 2004

Key Points of Questions

Paper IA

Question 5

a. Gender socialisation

Gender characteristics, learned in early family life, reinforced in schools, peer groups, work places, sport, media

Birth – treated by parents differently, v
– appropriate behaviour encouraged, toys/clothes

Reinforced • conditioning rewards/punishments
• imitation
• self definition

Examples School : Text books – stereotypes
Career options
Sport options
Home — roles, housework/child care
Social/work — remuneration
Child bearing
Networking
Media/advertising — sex objects/target groups

Differences in health behaviour, M v. F

Career choices, e.g. doctor v. nurse, surgical specialties M > F, primary v. specialty stream, employment packages M > F

Senior positions/management/representation in governance

Focus of concerns at policy/health care provision/priority setting

Hong Kong College of Community Medicine
Administrative Medicine Part I Examination 2004

Key Points of Questions

Paper IA

b. Minority Groups

- A result of colonial settlement, migration, refugee (famine/poverty/persecution), missionary work, physical/mental disabilities, chronically ill, social factors, e.g single parent.
- Physical/cultural practices unlike dominant group.
- Susceptible to different/unequal treatment or access to wealth/power/prestige

Distinguishing features:

Socially visible characteristics: colour, religion, language, external appearance.

1. Suffer various disadvantages at hands of majority group – exploited, low status.
2. Self conscious group – strong sense of membership/affinity in group. Common identity.
3. Membership of group is an ascribed status and involuntary. Difficult to leave.
4. Tend to marry within group

Provision of health care for minority groups:

Challenges

- data collection/evaluation
- specific diseases, possibly genetically linked
- ? targeted health care
- involvement of stakeholders
- provision of efficient and effective care which is accessible, acceptable, ?equitable.

Local and overseas examples, e.g. new immigrants in Hong Kong, Aboriginal population in Australia.

Hong Kong College of Community Medicine
Administrative Medicine Part I Examination 2004

Key Points of Questions

Paper IA

c. The role of institutions in health and medical care

Institution --- a stable cluster of values, norms, status, roles, groups, which develop

around basic social needs for survival and progress

Patterns of thought/actions providing solutions for recurrent challenges

- Family → care of children
- Education → learning and cultural knowledge
- Religion/church → shared values and rituals
- Politics → allocation of power, maintain order
- Economics → provision of goods and services

Characteristics:

Resistant to changes

Interdependence of institutes within one political framework, e.g. capitalism v. socialism beliefs

Tendency to change together — isolated change v. difficult for one single institute

? Change sought → heated controversy on the necessity/rate/direction

Health Care Policy --- HWFB

Health Care Regulation (legal professional frameworks) --- Hong Kong Medical Council, Hong Kong Nursing Council, etc.

Health Education (undergraduate, post graduate, continuing education) / accreditation and training/research and development, e.g. medical schools and academic departments within the university framework, Hong Kong Academy of Medicine and its constituent Colleges.

Roles of associations, e.g. HKMA, BMA, HKNA

Hong Kong College of Community Medicine
Administrative Medicine Part I Examination 2004

Key Points of Questions

Paper IA

Roles of societies --- usually specialty based

Health Care Management --- Department of Health, Hospital Authority,
NGO, private sector institutes

Health Care Insurance

Hong Kong College of Community Medicine
Administrative Medicine Part I Examination 2004

Key Points of Questions

Paper IA

Question 6

- a) Cost benefit analysis (CBA) is a form of economic evaluation which places monetary values on the outcome/benefit side of the equation. It does answer the questions of "worthwhileness" and "how much" of a policy to pursue. Its bottom line is: does a programme pay? Do its benefits justify its cost? It is a useful aid to decision making, particularly on whether an expenditure should be expended.

In doing CBA, the costs include opportunity cost, and benefits include direct, indirect and intangible ones. All are expressed in monetary terms so that a comparison can be made between the costs and the benefits. CBA therefore facilitates decision making in resource allocation. It should be noted that the process of enumerating, measuring and valuing costs and benefits requires assumptions to be made. These assumptions must be made explicitly and sensitivity analysis should also be performed to provide the lower and upper range of the values.

An example is to consider whether to invest in colorectal or cervical cancer screening programme. A properly performed CBA will facilitate the decision making.

- b) Cost effectiveness analysis (CEA) is another form of economic evaluation. It is used to judge the relative economic merit of one product, policy, service, or programme in comparison with its alternatives. It is a useful aid to decision making. At its simplest form, CEA is concerned with the 'how' of the policy. It is deployed to consider how at least cost to meet a particular objective, or give a fixed budget to meet a particular objective, how best to deploy the budget. Hence, before the relative economic merit of a particular programme is judged, it is important that as many as possible of the alternative options are identified.

Hong Kong College of Community Medicine
Administrative Medicine Part I Examination 2004

Key Points of Questions

Paper IA

An example is the screening test for Down's syndrome using maternal age or "triple test" to identify prenatally mothers with Down's children. The outcome measures can be cost per birth of a baby with Down's syndrome avoided. CEA will identify which one of these screening tests will be more cost effective to achieve the objective. CEA does not answer the question whether it is worthwhile to pursue the screening policy, or how much of the policy to pursue.

c) Discounting

Discounting is the process of computing the present value of some benefit or cost to be received in the future by application of a rate of discount to future value. In other words, \$100 in benefits, or cost, not expected until next year is worth less than \$100 in benefits, or cost, expected today. That is to say, time matters.

In economists' term, human beings are said to have a positive rate of time preference: we simply prefer to have the goods and services now rather than latter. This is because the expected future consumption is subject to risk and uncertainty. There is also the consideration of the inevitability of death, and the marginal utility of consumption decreases through time.

When doing health economics evaluation, the technique of discounting should be used for programmes that extent over time. Discounting allows a future stream of benefits or cost to be equated with a curtain sum now (the present value).