Pay for Performance (P4P) in Hospital Authority (HA)

What is P4P ?

- A new **internal resource allocation system** for HA. P4P is about strategic purchasing of services that are most needed by the community. Casemix is part of the P4P system.

- **Casemix funding** is a kind of activity-based funding where the provider is paid for each case treated, adjusted for the complexity of the case, using a pre-set classification and price list.

Why P4P ?

- HA needs to move away from the current internal resource allocation system which has been criticized for lack of transparency and hence the unfair allocation between clusters. There is no reward for quality nor incentive for efficiency. HA needs to **modernize** its internal resource allocation system.

- In sum, the new P4P system will bring about the following **benefits** :

  - Incorporates growth, quality, service improvement
  - Ties resources to workload
  - Government and community will know the extra funding from Government is being used well
  - Enables performance benchmarking (e.g. length of stay) to drive better practice

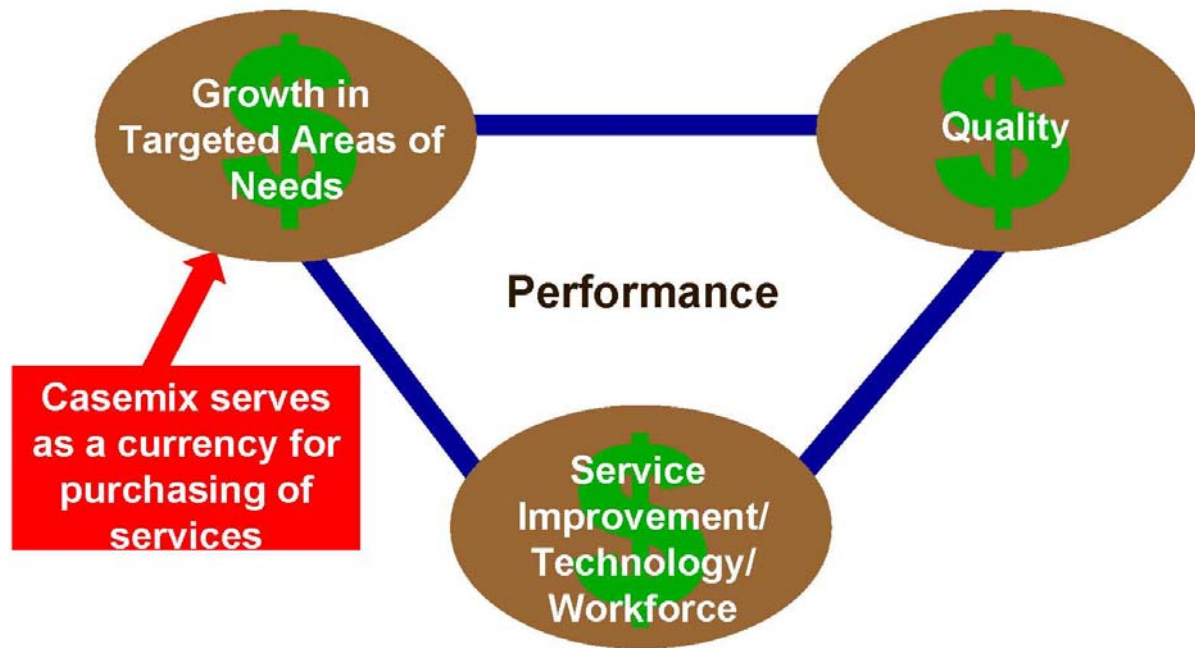## What exactly does Pay for Performance (P4P) mean for HA ?

P4P = G + Q + STW

Clusters will be given additional funding for :

G = service growth in response to demand pressure areas

Q = Quality improvement

STW = Service improvement as a result of service re-configuration, technology advancement and training and retention of workforce

Service Growth in Targeted Areas (G)

As a result of Hong Kong's growing and ageing population, increasing expectation and demand from community, HA shall target its service growth in the following areas :

(a) **Service enhancement in response to population growth and ageing effect** particularly in under-developed communities, e.g. opening of additional beds in NTW and KE

(b) Enhancing **service for treatment of life threatening diseases** to address Government's priority areas, e.g. expansion of oncology and renal dialysis services

(c) **Addressing unacceptable long waiting time**, e.g. Cataract surgery, joint replacement surgeries for lower limbs, urology surgeries for urinary passage obstructions

(d) **Secondary prevention programmes** e.g. diabetes management

(e) **Public-Private-Partnership** programmes

Quality Improvement (Q)

Designated funding will be earmarked to support quality enhancement programmes which :

(a)   improve patient safety, such as replacement of high risk single use devices;
(b)   enhance medication safety;
(c)   enhance data and patient security and privacy;
(d)   facilitate hospital accreditation preparation;
(e)   modernize patients satisfaction management;
(f)   cover primary prevention such as vaccination; and
(g)   facilitate community health such as community health call centre.

Service Improvement, Technology and Workforce (STW)

Professional and dedicated staff, equipped with appropriate equipment and medication is an essential component of modern healthcare system.   Priority programmes that will be supported with designated funding include :

(a)   new HIV and cancer drugs;
(b)   cytogenetic service;
(c)   liver transplant service enhancement;
(d)   enhancement of blood service;
(e)   ICU database management system;
(f)   diagnostic waiting time management;
(g)   deep brain stimulation; and
(h)   initiatives that train and promote retention of staff.

Application of Casemix to Service Growth

- Important assumption that more funding would be available (though exact allocation from government would only be made know at the Budget).   Based on HA's service planning projection, **a 2% overall increase in activities** is expected to meet the rising demand from growing and ageing population.

- The Casemix system proposed to be adopted for the HA at the start in 2009/10 will only apply to **acute inpatient services** i.e. only applies to about **53% of HA's expenditure**.

- Additional funding will be allocated to Clusters for service growth in acute inpatient services using casemix as a currency.

- For **redistribution between clusters, only 10%** of the estimated "over funding" will be re-distributed from "over-funded" clusters to "under-funded" clusters.   ("Over-funded" refers to the gap between the amount of funding that a cluster receives now and it should get for the casemix adjusted inpatients it treats).

- Example 1 - If a Cluster is "over-funded" by $200M, then it will have $20M downward budget adjustment.   This will go into a pool and be redistributed to those who are "under-funded".

- Example 2 - If one Cluster should receive $70M more for the casemix adjusted work it do, it will receive an upward budget adjustment of $7M.

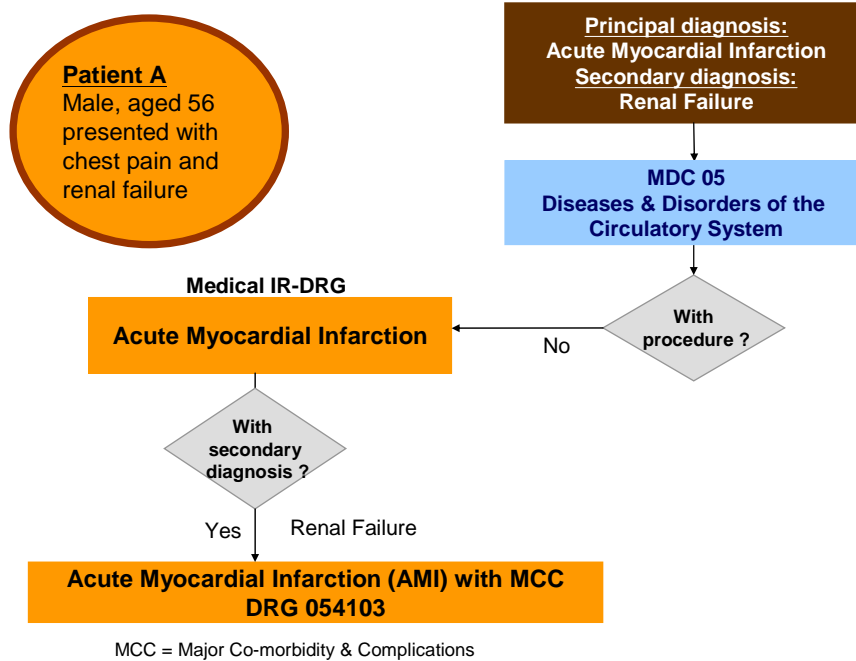## How resources are to be allocated based on Casemix?

- The HA will be adopting a **casemix classification system** called the **Diagnosis Related Groups (DRGs)**.   The DRG system was originally developed by Professor R. Fetter and his colleagues at Yale University in the late 1960s. The DRG classification is based on the principle that diagnosis and other patient characteristics can be categorized in terms of the total quantity of resources used in treating patients.   An individual DRG is a collection of clinical entities which require similar types and quantities of hospital resources.

How Patients are Categorized into DRGs ?

- The DRG system categorizes all possible combinations of the 20,000+ disease and procedures codes set out in the International Classification of Diseases (ICD9) into approximately 1,000 groups.   The ICD9CM is a clinical modification of ICD9 developed in the USA to allow more specific classification of diseases.

- The diagnosis codes using ICD9CM are aggregated into 23 **Major Diagnostic Categories (MDCs)**, broadly determined according to body systems or the specialty that would normally provide care.

- Diseases that are diagnosed and treated in similar ways by similar specialties are aggregated in the same MDC regardless of aetiology.

- Each MDC (with a few exceptions) is partitioned on the **presence or absence of specific procedures**.   Discharges with specific procedure performed during hospitalization are classified as 'surgical' and others as 'medical' hospitalizations.

- **Medical hospitalizations** are partitioned according to the **"principal diagnosis"**, e.g. neoplasms, diseases of the eye.

- **Surgical hospitalizations** are partitioned into procedure categories ordered hierarchically in terms of the **intensity of resource consumption**.   A patient discharged with multiple procedures is assigned to the surgical group based on the most resource intensive operating room procedure within the hierarchy.
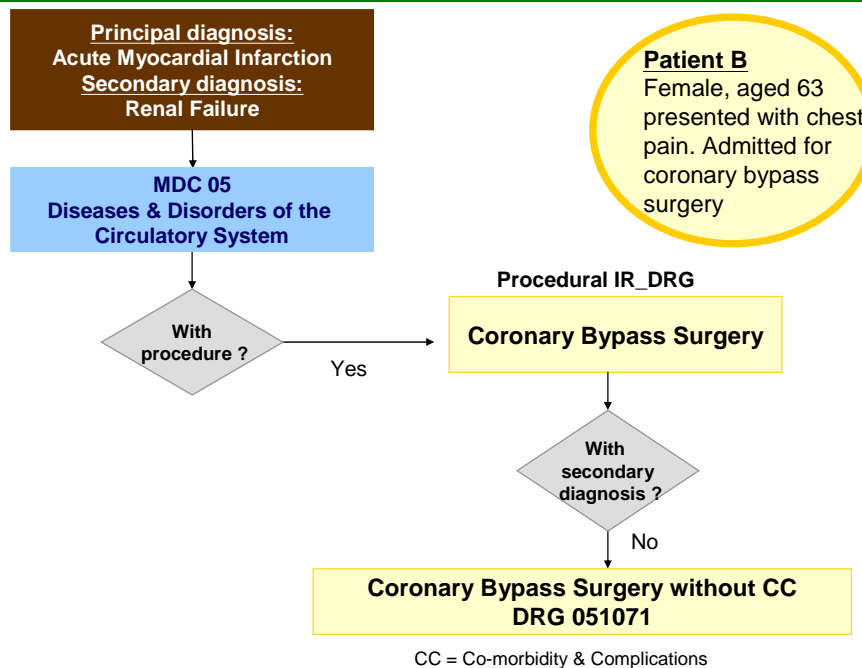
- **Complications and co-morbidities**, discharge status, and sometimes age, could influence the severity types of DRG allocated to the patient.

- **Each patient** will ultimately be allocated to one **DRG** only.   Allocation occurs on the basis of information contained in the patient's discharge abstract.

Grouping of Patient into DRG Classification (*1A*)

Patient A
Male, aged 56 presented with chest pain and renal failure

Principal diagnosis:
Acute Myocardial Infarction
Secondary diagnosis:
Renal Failure

MDC 05
Diseases & Disorders of the Circulatory System

With procedure ?

No

Medical IR-DRG

Acute Myocardial Infarction

With secondary diagnosis ?

Yes | Renal Failure

Acute Myocardial Infarction (AMI) with MCC
DRG 054103

MCC = Major Co-morbidity & Complications

Figure 1A :   **Decision Tree for Sorting a Patient into a Medical DRG**

Grouping of Patient into DRG Classification (*1B*)

Principal diagnosis:
Acute Myocardial Infarction
Secondary diagnosis:
Renal Failure

Patient B
Female, aged 63 presented with chest pain. Admitted for coronary bypass surgery

MDC 05
Diseases & Disorders of the Circulatory System

With procedure ?

Yes

Procedural IR_DRG

Coronary Bypass Surgery

With secondary diagnosis ?

No

Coronary Bypass Surgery without CC
DRG 051071

CC = Co-morbidity & Complications

Figure 1B: **Decision Tree for Sorting a Patient into a Surgical DRG**

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