The Chinese University of Hong Kong
The Nethersole School of Nursing
CADENZA Training Programme

CTP 003: Chronic Disease Management and End-of-life Care

Web-based Course for Professional Social and Health Care Workers

香港賽馬會慈善信託基金
The Hong Kong Jockey Club Charities Trust

Chapter 4

Disease Management Models for Managing Chronic Illnesses and Common Co-morbidities in Older Adults

Lecture Outline

- To understand the term "Chronic Disease Management"
- To explore the current disease management of chronic diseases of older people in Hong Kong
- To discuss the proposed healthcare reforms related to the management of chronic diseases in Hong Kong
- To discuss future trends in chronic disease management
- To understand co-morbidities in older people
  - definition
  - management
  - complications

Chronic Diseases

- Heart disease, stroke, cancer, chronic respiratory diseases and diabetes

- Long duration
- Slow progression
- Incurable

- WHO report: 60% of all deaths attributed to chronic disease

World Health Organization (2008)

Suggested Video:

"Face to Face with Chronic Disease"
http://www.who.int/features/2005/chronic_diseases/en/

- To understand more about *chronic diseases and health promotion* in WHO,

  please click on the link to the WHO website:
  http://www.who.int/chp/en/#

Chronic Disease Management (CDM)

Definition

- A systematic approach to improve health care for people with chronic disease.

- Healthcare can be delivered *more* effectively and efficiently if
  - **patients** can take an active role in their own care
  - **providers** are supported with adequate resources
  - **healthcare** experts can assist their patients in managing their illnesses

Disease management

GOOD DISEASE MANAGEMENT

ü enhances communication between the physician and the patient when planning care for the patient

ü focuses on the prevention of disease/ complications and patient empowerment

ü has regular monitoring/ evaluation of clinical, humanistic and economic outcomes

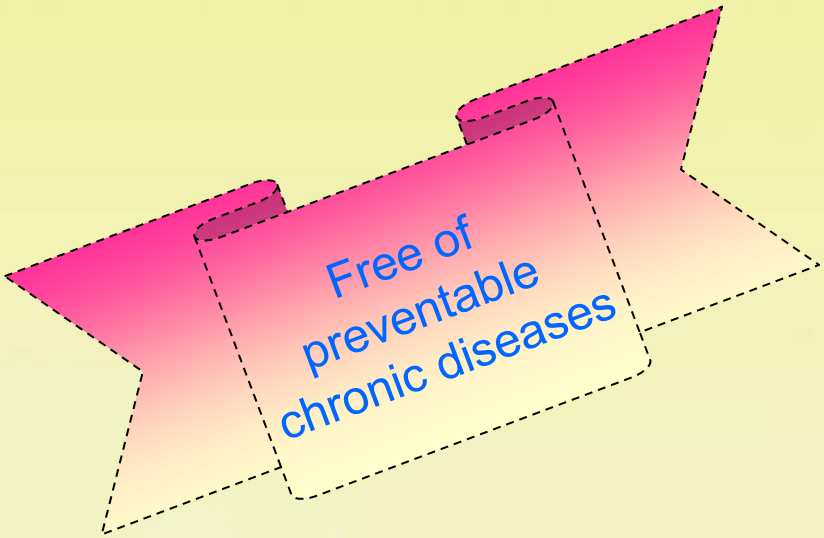
Good Disease Management

GOOD DISEASE MANAGEMENT

can help to

prevent further complications

and promote quality of life



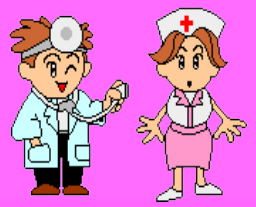
Do you know how the current disease management in Hong Kong is like?

Current Disease Management in Hong Kong

"Prevention" - first priority in disease management.

Once admitted to hospital, all discharge planning should start on the day

Emphasize on interdisciplinary approach



Do you think the management… ?

is sufficient?

Any reforms necessary?

is comprehensive?

Anything specific for older people?

Leading cause of death in Hong Kong

Chronic diseases

constitute

MAJOR causes of DEATH

and contribute to ~75% of all deaths

Department of Health (2001)

Please read:

Department of Health Annual Report 2000-2001

Ch.1 HEALTH OF THE COMMUNITY

http://www.dh.gov.hk/english/pub_rec/pub_rec_ar/pdf/0001/ch_01_a.pdf

Please pay attention to:

- the leading causes of death
- population-based health information
- priorities in promoting health - elderly health

We, therefore, can imagine the **impact** and **burden** of chronic diseases on our health care system

Preventive measures

Department of Health (DH)

is an organization that aims at

disease prevention and health promotion

Elderly Health Services

- Set up by DH in July 1998
- 18 Elderly health centres and 18 visiting health teams have been established, one in each district

Elderly Health Services

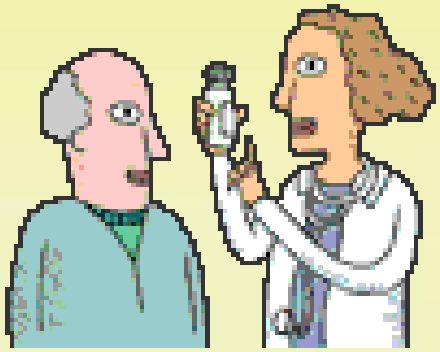
Aim to:

ü enhance primary health care for older people

ü improve older people's self-care ability

ü encourage healthy living

ü strengthen care support from family and carers



Elderly Health Services

Main services include:

- public health and administration
- elderly health centre
- visiting health team

Discharge Management

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Discharge Management

- Discharge planning (pre and post)
- Out-patient clinic (general and specialist)
- Specialty nurse-led clinic
- Enhanced Home and Community Care Service (EHCCS)
- Community Geriatric Assessment Service (CGAS)
- Visiting Medical Officer (VMO) in residential homes

Discharge Planning

- It is a process by which the required ***support services*** are organised to address short-term deficits in patients' health and functional status upon discharge from hospital back to their homes.

Parkes J, Sheppard S (2000).

Pre-discharge Planning

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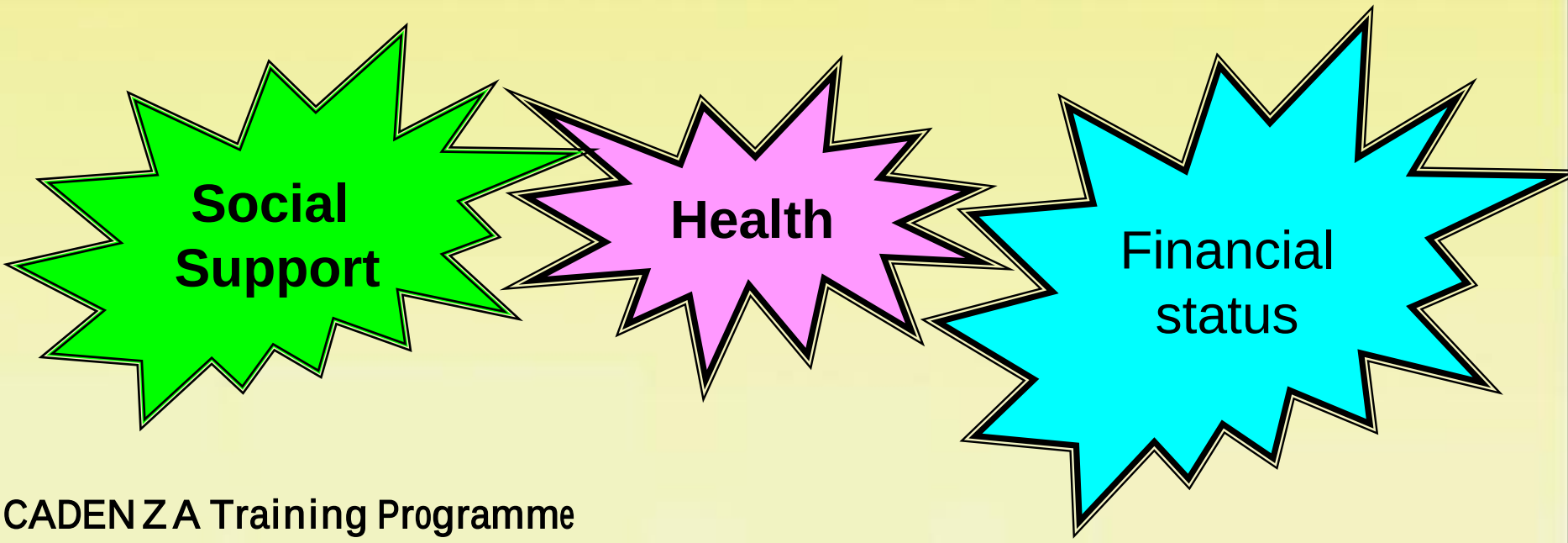
Pre-discharge Planning

- Well-planned discharge planning can provide a continuum of care after discharge from hospital to community.

- Improve the quality of care so that older people can continue to live in the community as long as possible.

What issues do you think should be considered in discharge planning?



Pre-discharge Planning

- Multidisciplinary case conference is necessary
- Pre-discharge planning may involve
  - CNS
  - Community support
  - Social support
  - Domiciliary home visit/home modification
  - Arranging residential home

Pre-discharge Planning

- Well planned pre-discharge planning

 hospital re-admission rate

 length of stay in hospital

 rate of AED attendance

Post-discharge Planning

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Post-discharge Planning

Back home and follow up in community?

It is usually affected by the final destination of the discharged person

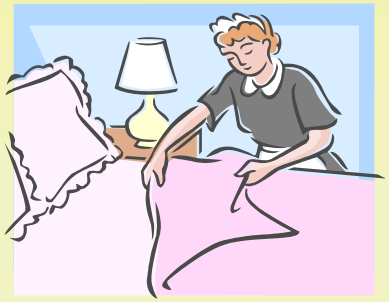
Back to residential home?

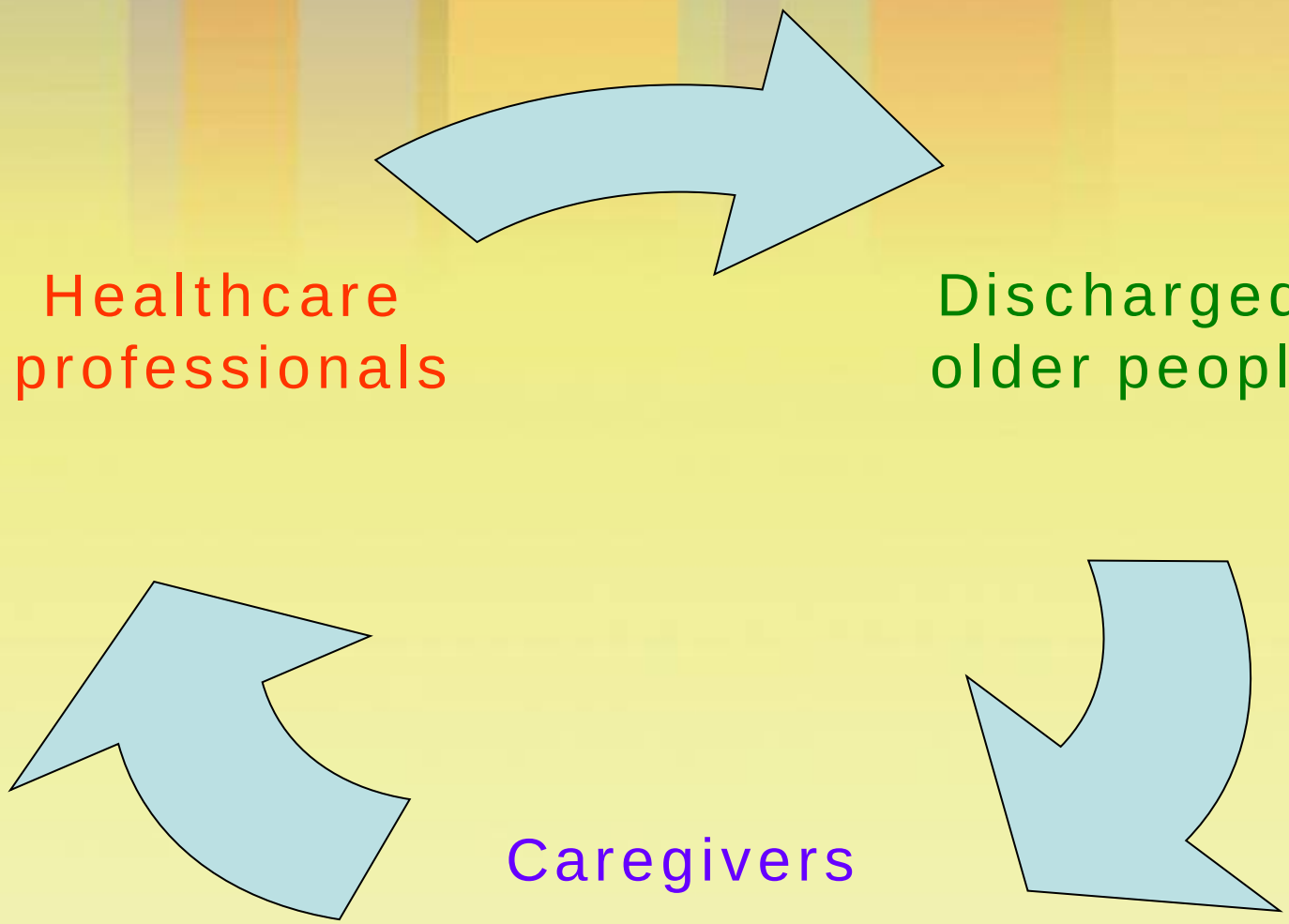
Post-discharge Planning

Aims:

- ↑ care of older people with chronic illnesses

- ↑support for the caregivers





After discharge, the efforts of healthcare professionals, caregivers and the discharged older people are equally important.

Follow up (by Hospital Authority)

- General Out-patient Clinic (GOPC)
- Specialty Out-patient Clinic (SOPC)
- Specialty nurse clinic
- Community Nursing Service (CNS)
- Enhanced Home and Community Care services (EHCCS)
  - (Collaboration programme with NGOs)
- Telephone follow up and consultation
- Post-discharge home visit

General Out-Patient Clinic (GOPC)

- Serves episodic cases and follow-up cases with chronic illnesses

- No concession of fees for the older people in the community, unless they are CSSA recipients, pensioners, war victims, TB cases, or the fees are waived by medical social workers

- For more information about **general out-patient departments**, please click http://www.ha.org.hk/visitor/ha_visitor_index.asp?Content_ID=10052&Lang=CHIB5&Dimension=100&Ver=HTML

General Out Patient Clinic (GOPC)

- $45 per attendance
- Dressing & injection ($17 per attendance)

Non-eligible persons

- General out-patient ($215 per attendance)
- Dressing & injection ($70 per attendance)

GOPC Phone Appointment Service

- HA introduced the service in October 2006
- The public can call anytime to make an appointment within 24 hours
- Aimed to alleviate the early morning queues outside GOPCs
- Quotas are reserved for those aged 65 or above with episodic illnesses

Specialty Clinic (SOPC)

- Provides consultation, treatment and investigations for patients referred by hospitals, GOPCs and private practitioners

- For more information about **specialist clinics**, please click http://www.ha.org.hk/visitor/ha_visitor_index.asp?Content_ID=10053&Lang=CHIB5&Dimension=100&Parent_ID=10042

Specialty Clinic (SOPC)

- Specialist out-patient (including allied health services)
- $100 for the 1st attendance
- $60 per subsequent attendance
- $10 per drug item

Non-eligible persons

- Specialist out-patient (including allied health services): $700 per attendance

Specialty Clinic (SOPC)

- Geriatric, psychiatric & rehabilitation day hospital
- $55 per attendance

Non-eligible persons

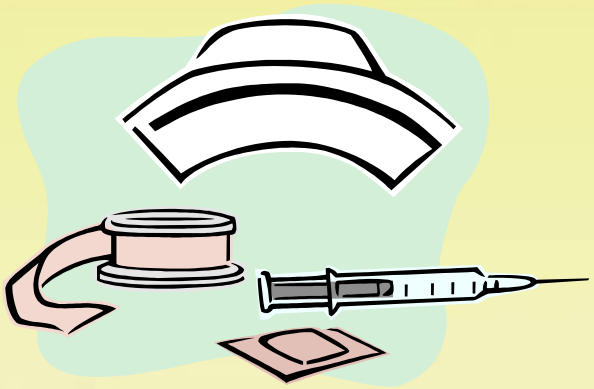
- Geriatric & rehabilitation day hospital
- $1,400 per attendance

Specialty Nurse-led Clinic

- Run by a group of highly qualified nurses with specialised training
- Offers advanced care and advice in specialty areas

Examples:

- hypertension clinic
- DM clinic
- stoma care clinic



Community Nursing Service (CNS)

- Consists of specially trained qualified nurses
- Provides continuous nursing care and treatment in patients' homes after discharge from hospital
- Provides information on health promotion and disease prevention

Community Nursing Service (CNS)

- Community nursing (general)
  - $80 per visit
- Community nursing (psychiatric)
  - Free

Non-eligible persons

- Community nursing (general)
  - $340 per visit
- Community nursing (psychiatric)
  - $1,050 per visit

Enhanced Home and Community Care Services (EHCCS)

- Based on government policies of "Community Care" and "Ageing in Place".
- As a result of these policies, Enhanced Home And Community Care Services (EHCCs) commenced in 2001.
- For more information about **Enhanced Home and Community Care Services**, please click http://www.swd.gov.hk/en/index/site_pubsvc/page_elderly/sub_csselderly/id_enhancedho

Enhanced Home and Community Care Services (EHCCS)

- Provide community care services to older people having physical or cognitive impairment at home
- Assessed by Standardized Care Need Assessment Mechanism for Elderly Services (SCNAMES)
- EHCCS is proven to be needed for those who are on Care-and-Attention care level but choose to continue to live at home

Enhanced Home and Community Care Services (EHCCS)

- HA collaborates with NGOs to implement EHCCS
- Service provision
  - specialist medical follow-up
  - basic and specialist nursing care
  - supportive care management
  - case conference

Telephone Follow-up and Consultation Post-discharge Home Visit

- Regular phone follow-up after discharge and home visits at regular intervals and as necessary.
- Purpose:

– support for older people and caregivers in the community

– early identification of problems

– give advice

– early intervention and prompt treatment

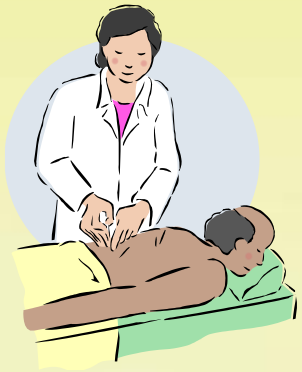
Suggested Reading

Wong, S. P. Y., Kong, B., Wong, J. (2001) **"Geriatric Care at your doorway": Post discharge home follow up and direct hotline service for community living elderly.** *The Hong Kong Nursing Journal, 37* (2), 21-26.

Follow-up (by others)

Older people can choose their own way to follow-up their chronic diseases, such as

– general practitioner
– Chinese herbalist
– other alternative therapies, e.g., qigong



Discharge to Residential Home

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Discharge to Residential Home

- If an older person is discharged to a residential home, they may be followed-up by

Community Geriatric Assessment Team

- Commenced in 1994, comprising13 teams under HA
- Outreach service for older people living in residential care settings
- Multi-disciplinary approach with geriatricians, geriatric nurses, PT, OT, medical social workers and other supporting professionals such as dietitians, podiatrists, etc.
- For more information about CGAT, please click http://www.ha.org.hk/visitor/ha_visitor_index.asp?Parent_ID=10089&Content_ID=10091&Ver=HTML

Community Geriatric Assessment Team

- Objectives
  - multi-disciplinary assessment and management
  - improve interface between medical and social services for older people
  - develop rehabilitation programmes
  - training of staff in institutions

Visiting Medical Officer in Residential Care Homes

- After SARS, HA promoted the ‘One Home, One VMO’ scheme and recruited VMOs to:

- provide on-site management of episodic illness and sub-acute problems as well as stable chronic illness
- follow up with discharged residents referred by CGATs
- assist in monitoring medical surveillance during prevailing infectious periods

Are all these ENOUGH for older people with chronic illnesses???

Healthcare Reform

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Healthcare Reform

- Mr. Shane Solomon, ex Chief Executive of Hospital Authority mentioned new insights concerning the health care system in Hong Kong during the Hospital Authority Convention 2008.

Healthcare Reform

- **PRIMARY HEALTHCARE** is the best way to manage people with stable chronic illnesses.

- Family doctors should be trained to work in the private sector with a focus on chronic disease management, multidisciplinary care and prevention.

Solomon, S. (2008).

How about older people?
Is there any healthcare management
specific to older people
with chronic illnesses?

Community Primary Care Centre in the future???

- Public and private family doctors
- Nurse-led clinics
- Home care nurses
- Community rehabilitation services
- **Specialised clinics for the elderly**

Solomon, S. (2008)

Public Private Partnership

- Older people need a better healthcare system with greater capacity and more varieties of community care.
- To achieve this aim, public and private healthcare providers need greater collaboration.

- **Cataract Surgeries Programme**
- **Tin Shui wan Primary Care Partnership Project**

Nurse-led Clinic

– Provides more community-based healthcare services

– Specialised and outreach care for community-dwelling elderly

Chinese Medicine in the Elderly Healthcare Voucher Pilot Scheme

- Incorporates Chinese medicine in this scheme
- In future, HA will establish public Chinese medicine clinics for training and the development of evidence-based Chinese medicine
- Combination of Chinese and Western medicine in future

CHOW, Y. Y. N. (2008)

Anymore???

Pilot Programme :

Integrated Discharge Support Programme

Integrated Discharge Support Programme (IDSP)

- In 2007-2008, the government launched a pilot scheme to provide transitional rehabilitation services to discharged older people to enable a better transition from hospital to community.

- Jointly operated by
  - Labour and Welfare Bureau
  - Hospital Authority

click

http://www.hab.gov.hk/file_manager/en/documents/policy_responsibilities/FamilyCouncil/ProgresElderly_FC_7_2008.pdf

Objectives

- To offer one-stop support services
  - from discharge planning to carer training and support
- To enhance rehabilitation and home care support services
- To avoid unnecessary hospitalisation
- To reduce unplanned hospital re-admission rates
- To enhance the quality of life for older people

Target Group

- > 60 years
- Discharged from the pilot HA hospitals with high readmission risk, high rehabilitation needs and high personal care needs

- 1st Pilot
  - Commenced March 2008 in Kwun Tong District
- 2nd Pilot
  - Commenced August 2008 in Kwai Tsing District
- 3rd Pilot
  - Commenced July 2009 in Tuen Mun District
- Completion of the programme
  - March 2011

- Multi-disciplinary team members include
  - HA healthcare professionals
    - geriatricians
    - nurses
    - PT / OT
  - NGO Home Support Teams

Service Provision

- Provides early and continuous discharge planning to older people on admission

- Services include:
  - medical assessments and consultations
  - home visits
  - nursing care
  - health empowerment to older people and carers
  - home support and rehabilitation
    - personal care
    - escort service
    - meal service
    - respite service

- Improve functional level and daily living skills by
  - therapeutic activities
  - home modification
  - assistive devices
  - carer education

Fees

- Home care service
  - According to the scales for community support
- Medical consultation
  - new case $100
  - old case $60

To achieve a better way for older people to receive appropriate treatment, what are the ***current problems*** of disease management for older people with chronic illnesses?

Problems of Current Disease Management in Hong Kong

Problems

- Sustainability of resources
- Enthusiasm of healthcare professionals for change and reform
- Transportation needs of the elderly
- Care of physically and/or mentally impaired older people

Older people often have multiple chronic illnesses that require regular follow-up.

To establish a healthy community for them,

what do we need?

1. Government

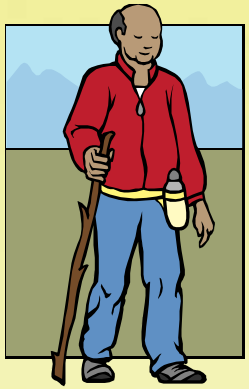
- more collaboration and more comprehensive approach between government, NGOs, Hospital Authority, private sectors.

- aim at one-stop medical services

- promote healthy ageing in all aspects

1. Older people

– healthy lifestyle, well-balanced diet
– regular appropriate exercises
– regular medical follow-up



Close collaboration between healthcare organisations, service providers and policy-makers plus continuous support from relatives is of the utmost importance.

Older people may suffer from multiple chronic diseases. This makes disease management more complicated and it needs long-term and prudent planning.

Co-morbidity

is therefore an important issue to be addressed in disease management.

Definition of Co-morbidity

‘Co-morbidity’ literally means ***additional morbidity***.

Co-morbidity

- In medicine
  - presence of one or more disorders/diseases in addition to a primary disease

- In psychiatry
  - presence of more than one diagnosis in an individual in a given period of time

Multi-morbidity

- The co-occurrence of two or more **active** health problems.

Wieland, 2005

Co-morbid relationships of chronic diseases in the older people

Co-morbidity

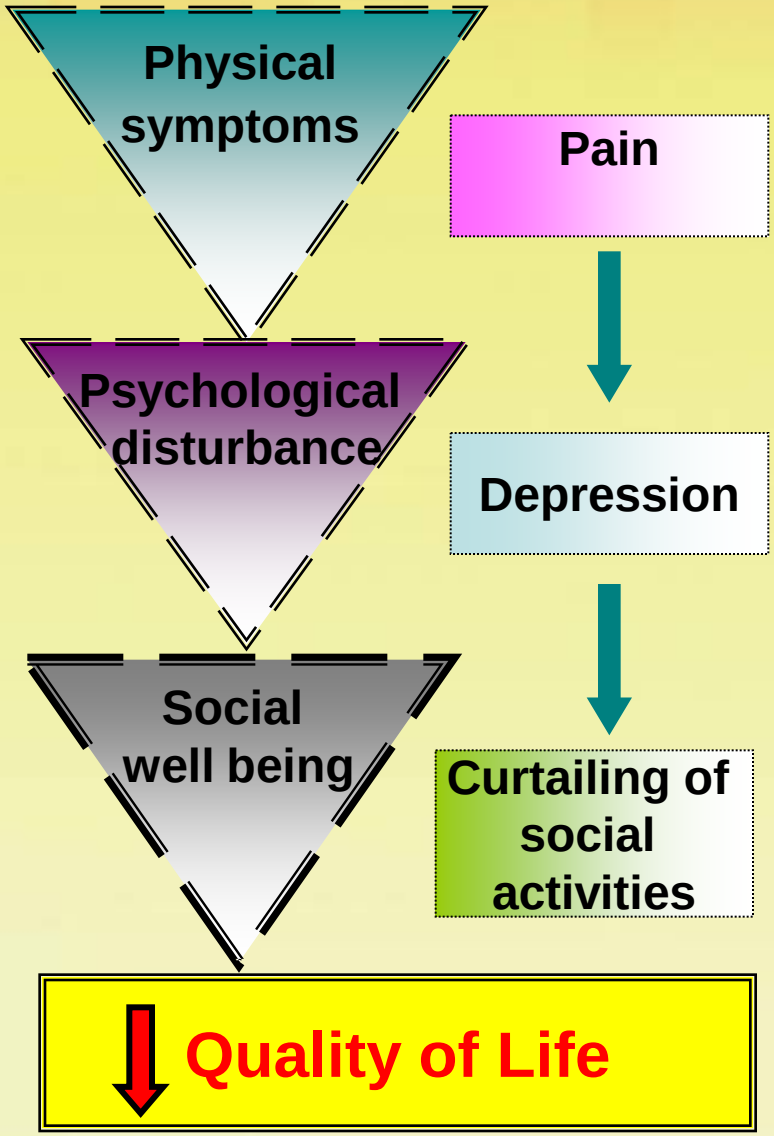
- Common in older people
- Generally related to mortality or complications

- Medical records of older people often show multiple active and inactive diagnoses.

For example

TRY TO THINK:

If an older person suffers from more than one disease, and if the diseases are lifelong, what will be their quality of life?



- In assessing the effect of comorbidities and quality of life, studies show that co-morbidities extensively affect generic quality of life, whereas the effect is considerably smaller for disease-specific measures.

Tuominen, 2007

Tuominen's Study

893 patients pending for total joint replacement were recruited in Tuominen's study (2007) to assess the effect of co-morbidities on health related quality of life (HRqol).

Result showed that HRqol of all total joint replacement patients was *poor* and significantly worse in those with comorbidities.

Tuominen, 2007

Fillenbaum's Study

- Common comorbidities in the older people are often inter-related.

- Fillenbaum (2000) reported substantial comorbidities among 4 common chronic health conditions in older people:
  - hypertension (H/T)
  - coronary artery disease (CAD)
  - cerebro-vascular disease (CVD)
  - diabetes mellitus (DM)

Fillenbaum's Study

The study revealed that

- CVD and DM were risk factors for CAD
- H/T was a significant risk factor for CAD
- DM was a risk factor for CAD and CVD

Fillenbaum, 2000

Management of Co-morbidities

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Management of Co-morbidities

- A focus on treating a single disease at a time is definitely not an appropriate management strategy for elderly patients with multiple co-morbidities.

- Instead, ***priority coaching*** is necessary.

Imagine a typical situation like Madam Chan, aged 68, living alone, suffering from DM, H/T, CAD, obesity, bilateral knee osteoarthritis and depression, multiple appointments to follow up in specialty out patient clinics.

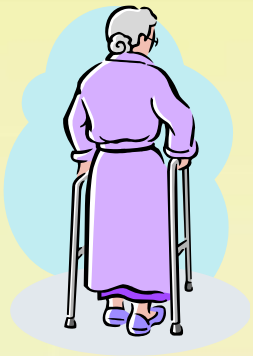
- DM may affect the situation of H/T
- H/T and obesity may affect CAD
- Obesity may worsen osteoarthritis
- Co-morbidities may result in many other complications, such as falling, GI disturbance, polypharmacy etc..
- Co-morbidities may provoke her depression

- Prioritising the treatment plan according to co-morbidity is therefore essential to keep cases like Madam Chan as functional as possible.

- Health education should be based on the severity of the disease so as to maximise the quality of life.

- It is important to take care of older people with co-morbidities in a holistic way, treating not only the physical aspects but also psychological and social aspects.

- Older people should be motivated to participate in the care plan; healthcare professionals should motivate them towards behavioural changes and maximise their quality of life.



Pugh, 2007

Complications of Co-morbidities

Complications of Co-morbidities

- The complications of co-morbidities are famously illustrated by the ‘Geriatric Giants’ (The Five Big I's)
- The Five Big I's are :
  - Iatrogenesis
  - Instability and falls
  - Immobility
  - Impaired intellectual function
  - Incontinence

Polypharmacy
Instability and Falls
Depression

are the commonest complications of co-morbidities

Complications of Co-morbidities :
Polypharmacy

- The commonest one is polypharmacy.
- There are different definitions concerning polypharmacy, but it usually refers to the use of multiple medications by a patient and more drugs are prescribed than clinically warranted.

Polypharmacy

Apart from the medications being prescribed by geriatricians or specialists during follow up, older people often keep using drugs beyond prescriptions.

Over-the-counter (OTC) drugs for symptomatic relief.

Family members or friends also recommend health food for health maintenance.

Traditional Chinese medicine (TCM) is also a popular medicine used by older people for chronic diseases.

Polypharmacy

- Be aware of the side effects
- Increases adverse drug reactions
  - drug-drug interactions
  - poor drug compliance
  - unnecessary hospital admissions due to inappropriate prescriptions

Chan, 2001

Polypharmacy

Examples of adverse drug reactions

1. Drugs with anticholinergic effect
   - Ø cause acute urinary retention
   - Ø may accelerate the decline of cognitive function

2. Drugs used to treat COPD exacerbation (corticosteriod)
   - Ø may affect the blood glucose level

- For older people with co-morbidities, an accurate drug history that includes prescribed drugs, OTC and TCM should be requested in detail.

- Rational prescription and proper selection of drugs are particularly important for older people.

The Hospital Authority's computerised Clinical Management System (CMS) and Corporate Drug Dispensing History (CDDH) can minimise the overlapping of drug prescriptions in different clinics/wards within Hospital Authority. They also offer a full picture of what kind of drugs the older person is receiving.

- Family caregivers can monitor and ensure drug compliance.

- Non-pharmacological approach should always be considered for older people with co-morbidities to minimise adverse drug reactions (ADR) caused by polypharmacy.

Ø Alternative methods:
  - physiotherapy for pain relief
  - dietary and lifestyle intervention for DM and H/T
  - relaxation exercises for insomnia

Chauraisa, 2005

Complications of Co-morbidities :
Instability and Falls

A common complication related to co-morbidities and it is often related to multiple drug use.

Evidence

- A 2007 study by Angalakuditi et al. evaluated the association between co-morbidities and drug use with the risk of in-hospital falls in people with chronic renal disease.

- The mean age of the patients recruited in the study was 68 Σ15 years.

- The result proved that co-morbidities further increase the likelihood of experiencing an in-hospital fall.

- The drugs that were associated with an in-hospital fall in this study were:
- anti-depressants
- anticonvulsants

The Annals of Pharmacotherapy (2007)

- Fractures commonly occur because of falls by older people; hip fractures are associated with the highest morbidity and mortality.

- For depressed older people, falls can result in disability.

- Frequent falls often increase the risk of immobility for older people - another ‘Big Giant' in geriatrics.

Kerse N. et al, 2008

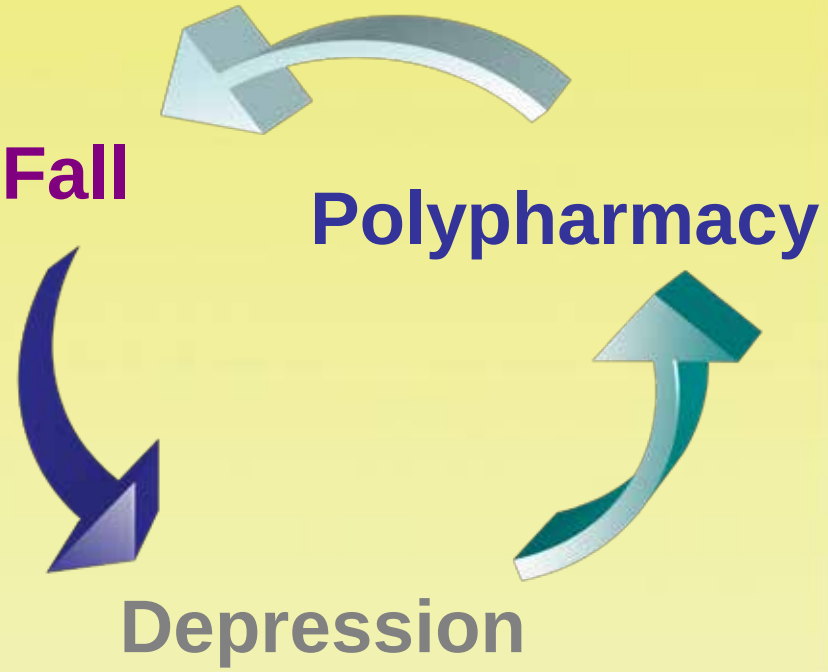
- Older people who often fall are **twice as likely to be depressed** compared with those who do not fall.

- Anti-depressant may improve the depressive condition.

- HOWEVER, it may increase the risk of falls, or it may result in another morbidity associated with falls.

Polypharmacy, falls and depression are inter-related.

All healthcare professionals should pay attention to those older patients who have multiple co-morbidities.



Complications of Co-morbidities : Depression

- Studies show that co-morbid medical illnesses are a hallmark of geriatric depression.
- The overall medical diseases, rather than any specific pathology, are primarily associated with depressive conditions for older people in primary care.

Evidence

546 primary care older people aged >65 with several chronic conditions were associated with depression. (Lyness et al., 2006)

Some medical-illness groups, particularly brain diseases (e.g., stroke, disease-severity factors such as brain-lesion size or location) are more likely to have depression as functional disability.

Lyness et al., 2006

What should we do?

- Awareness and prompt diagnosis from medical staff
- Proper concept of caring from caregivers
- Family support and acceptance
- Divertional therapy, e.g., join support groups, cultivate interests.

These are of great help in dealing with depression.

Medication should be the last resort.

Conclusion

Conclusion

- Co-morbidity is common in older people.
- It leads to multiple adverse effects on physical, psychological and social aspects of life.
- Attention to co-morbidity has increased in recent years as it poses great concerns in healthcare settings and also to society as a whole.

Conclusion

- Not all co-morbid diseases are treatable and most of them are lifelong diseases.
- Some co-morbid diseases are preventable. In such cases, it is worthwhile to pay more attention to them.
- Prevention of co-morbid diseases is a more cost-effective strategy compared with placing emphasis on treating the index diseases only and neglecting the complications of the co-morbid diseases.

Conclusion

- Interdisciplinary approach is important in treating older people diseases and managing co-morbidities.

- More research need to be done, in particular on in-depth definitions of co-morbid, multiple morbid conditions and their inter-relationship, and also on the degree of severity.

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