End of Life Care for Non-cancer Patients

The Singapore Experience

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Scope

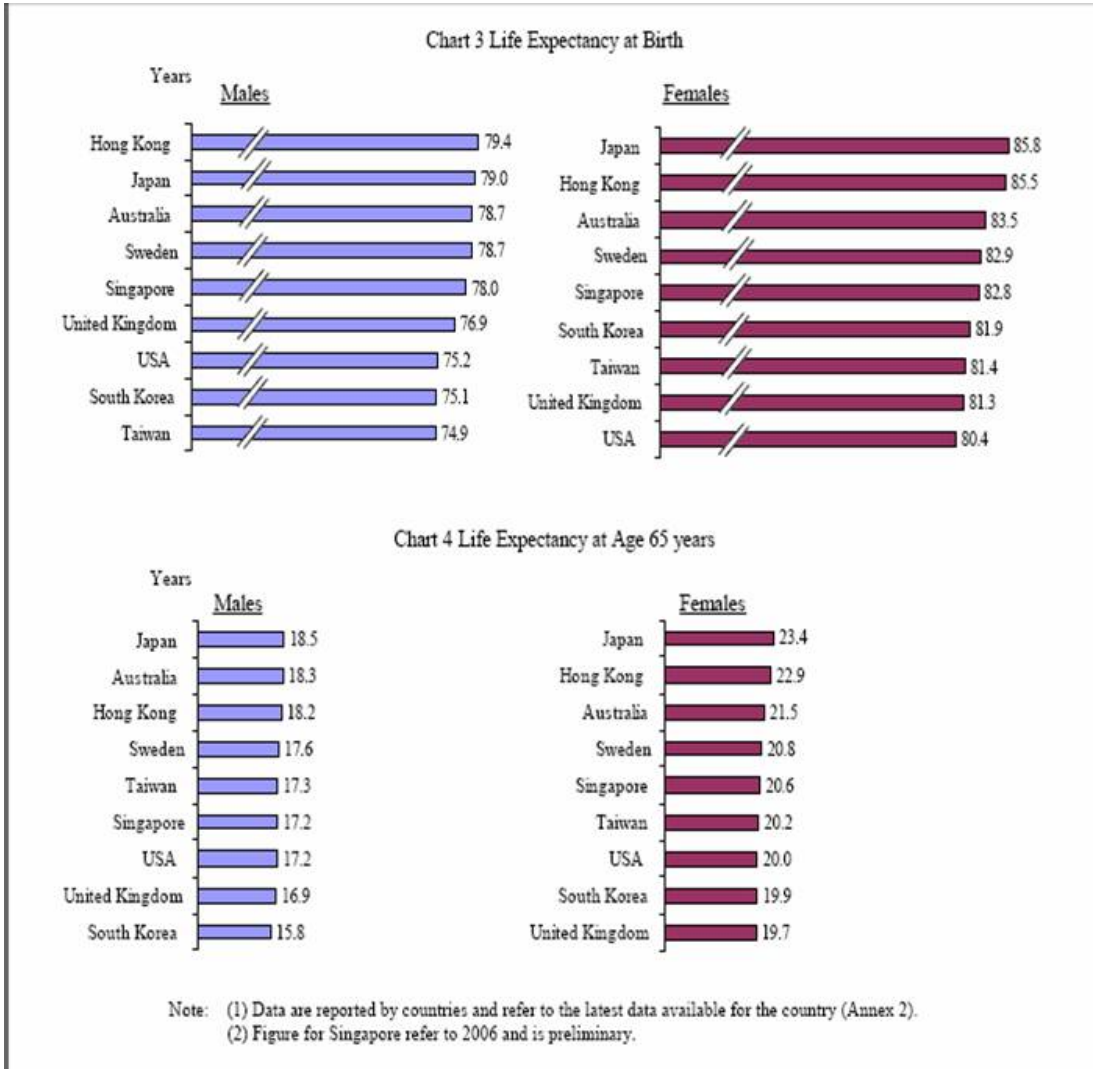
- Overview of healthcare system in Singapore
- History of palliative care in Singapore
- Needs of patients at the advanced stages of chronic illness
- Challenges faced in managing non-cancer patients
- Initiatives taken to improve EOL care for non-cancer patients

Population Statistics

- Land area: 710.2 sq km
- Total population: 4.84 million (2008)
- 65 years and above: 8.7%
- Race: Chinese 74.7%
  Malay 13.6%
  Indian 8.9%
  Others 2.8%
- Doctors to population ratio: 1.2 per 1000
- Nurses to population ratio: 4.2 per 1000

Life Expectancy of Singaporeans

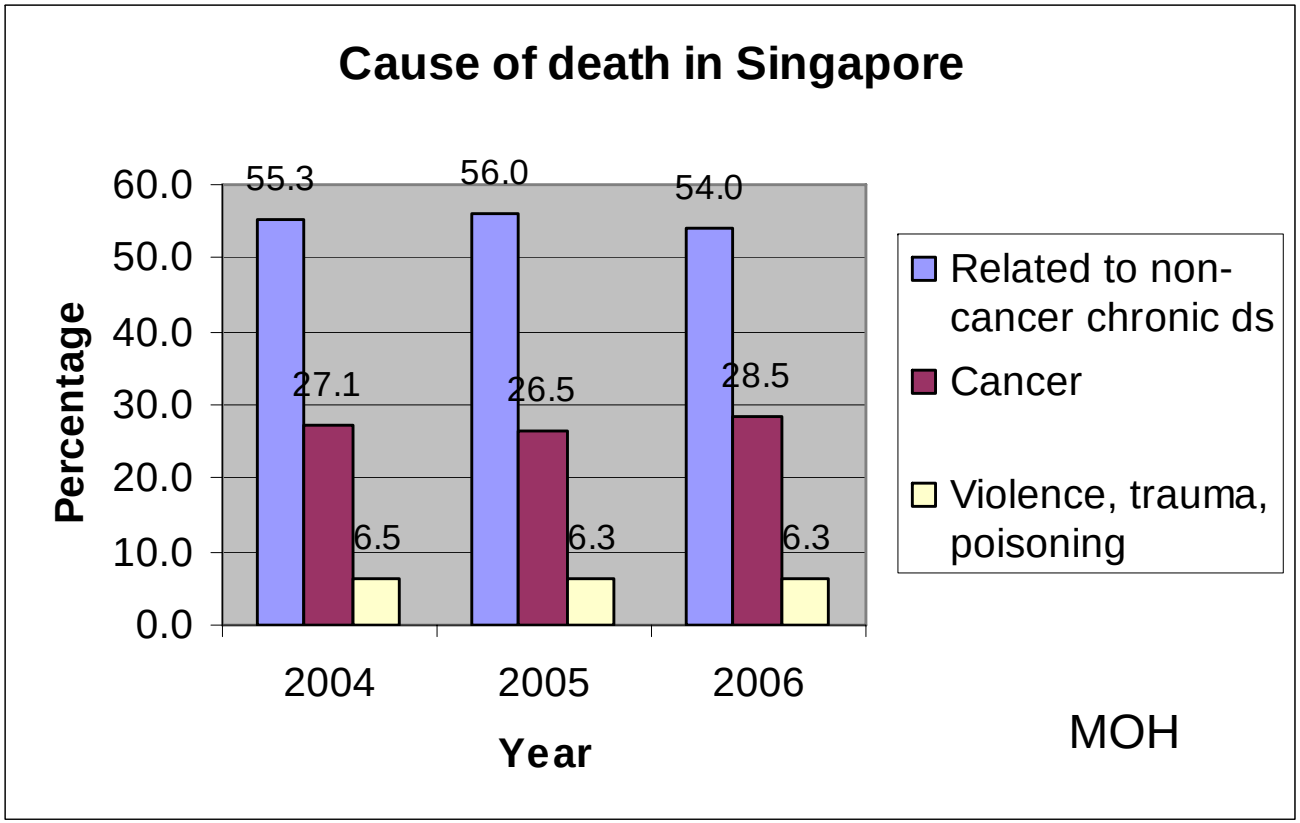
- **At birth:** 81.89 yrs
  - male: 79.29 yrs
  - female: 84.68 yrs



Major Causes of Death

Year		2006	2007	2008
Total no. of deaths		**16,393**	**17,140**	**17,222**
% of total deaths				
1	Cancer	28.5	27.7	29.3
2	IHD	18.5	19.8	20.1
3	Pneumonia	13.7	13.9	13.9
4	CVA	8.9	8.7	8.3
5	Accidents, violence and poisoning	6.3	6.0	5.8
6	Other heart diseases	4.3	4.3	4.0
7	DM	3.3	3.6	2.7
8	COPD	3.3	2.6	2.5
9	UTI	2.0	2.2	2.1
10	Nephritis, nephrotic sundrome and nephrosis	1.7	2.0	2.1

Cancer vs Non-cancer deaths



This trend is not only in Singapore…

May 20, 2008

Chronic diseases top causes of deaths globally

GENEVA - CHRONIC conditions such as heart disease and stroke, often associated with a Western lifestyle, have become the chief causes of death globally, the World Health Organisation (WHO) said on Tuesday.

The shift from infectious diseases including tuberculosis, HIV/Aids and malaria - traditionally the biggest killers - to noncommunicable diseases is set to continue to 2030, the UN agency said in a report.

'In more and more countries, the chief causes of deaths are noncommunicable diseases such as heart disease and stroke,' Ties Boerma, director of the WHO department of health statistics and informatics, said in a statement.

The annual report, World Health Statistics 2008, is based on data collected from the WHO's 193 member states.

It documents levels of mortality in children and adults, patterns of disease, and the prevalence of risk factors such as smoking and alcohol consumption.

'As populations age in middle- and low-income countries over the next 25 years, the proportion of deaths due to noncommunicable diseases will rise significantly,' it said.

By 2030, deaths due to cancer, cardiovascular diseases and traffic accidents will together account for about 30 per cent of all deaths, it said.

WHO Director-General Margaret Chan, in a speech to the WHO's annual assembly on Monday,

Healthcare System in Singapore

- Public sector healthcare system re-organized in 2000 into 2 clusters:
  - Singapore Health Services (SingHealth) in the East
  - National Healthcare Group (NHG) in the West

- Each cluster comprised of primary healthcare polyclinics, regional hospitals and tertiary institutions

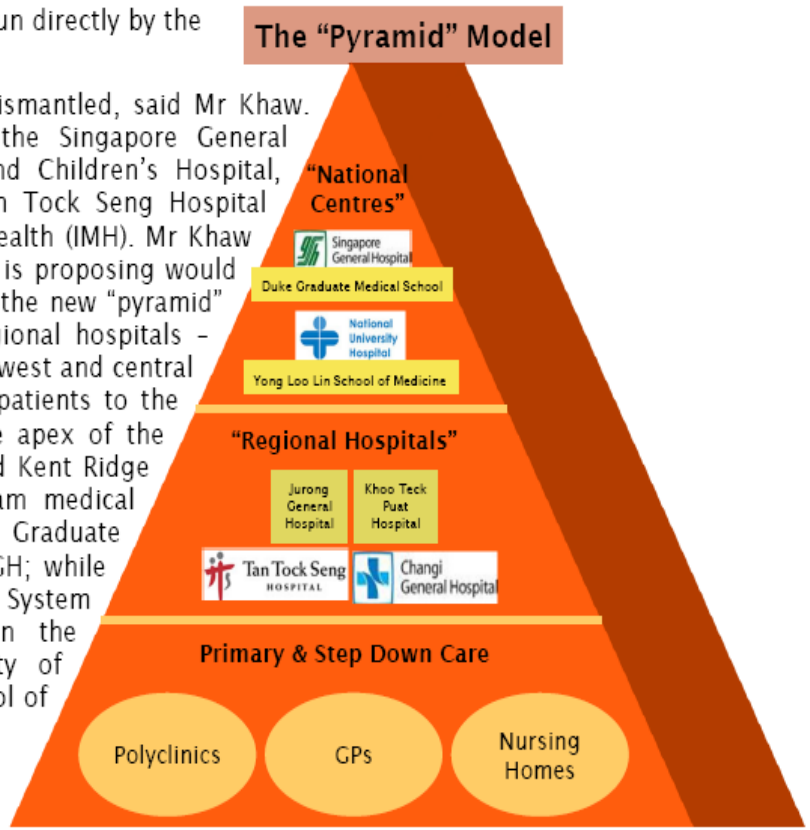
- Regional general hospitals:

NHG	SingHealth
- Alexandra Hospital (AH)	- Changi General Hospital (CGH)
- National University Hospital (NUH)	- Singapore General Hospital (SGH)
- Tan Tock Seng Hospital (TTSH)	- KK Women's & Children's Hospital

Healthcare System in Singapore

Health Services (SingHealth) and National Healthcare Group (NHG). Before that, they were run directly by the Ministry of Health (MOH).

The two clusters will not be dismantled, said Mr Khaw. SingHealth will focus on running the Singapore General Hospital (SGH) and KK Women's and Children's Hospital, while NHG will continue to run Tan Tock Seng Hospital (TTSH) and the Institute of Mental Health (IMH). Mr Khaw elaborated saying that the model he is proposing would be "a logical evolution". The base of the new "pyramid" model will be anchored by four regional hospitals – each serving the island's north, east, west and central zones. These hospitals would refer patients to the national centres – which occupy the apex of the pyramid – located at the Outram and Kent Ridge sites. SingHealth will run the Outram medical research campus, where the Duke Graduate Medical School is co-located with SGH; while the National University Health System (NUHS), the joint venture between the National University Hospital, Faculty of Dentistry and the Yong Loo Lin School of Medicine will operate at Kent Ridge.



Healthcare Funding

- Healthcare expenditure: 4% of GDP
- 3M framework: Medisave, Medishield and Medifund
- Primary healthcare polyclinics, regional hospitals and tertiary centres are heavily funded by the MOH, with co-payment from patients
- Step-down facilities eg. community hospitals, private NH, hospices are run by VWOs

Hospice Funding

- Home hospice:
  - free of charge
  - means-tested
  - government subsidy based on means-testing

- Inpatient hospice:
  - patient co-pays
  - means-testing
  - Medisave-deductible; government subsidy based on means-tesing

Expenditure of hospices only partially funded by the government, remaining shortfall raised through charity drives

History of Palliative Care in Singapore

History of Palliative Care in Singapore

- Palliative care services - originated from the hospice movement in 1985
- 1985: St Joseph’s Home (home for the aged, run by the Roman Catholic Canossian Sisters) set aside 16 beds for terminally-ill patients
- 1987: A group of volunteers formed the Hospice Care Group of the Singapore Cancer Society and started a charitably funded hospice home-care service

History of Palliative Care in Singapore

- 1988: Assisi Hospice started by the Franciscan Missionaries of the Divine Motherhood

- 1989: Hospice Care Association started by volunteers from the Hospice Care Group

- 1995: Hospice Centre formed, comprising an inpatient hospice (Dover Park Hospice), home hospice organisation (Hospice Care Association) and hospice day care

History of Palliative Care in Singapore

- 1995: 5 charities providing hospice service formed an umbrella body called the Singapore Hospice Council

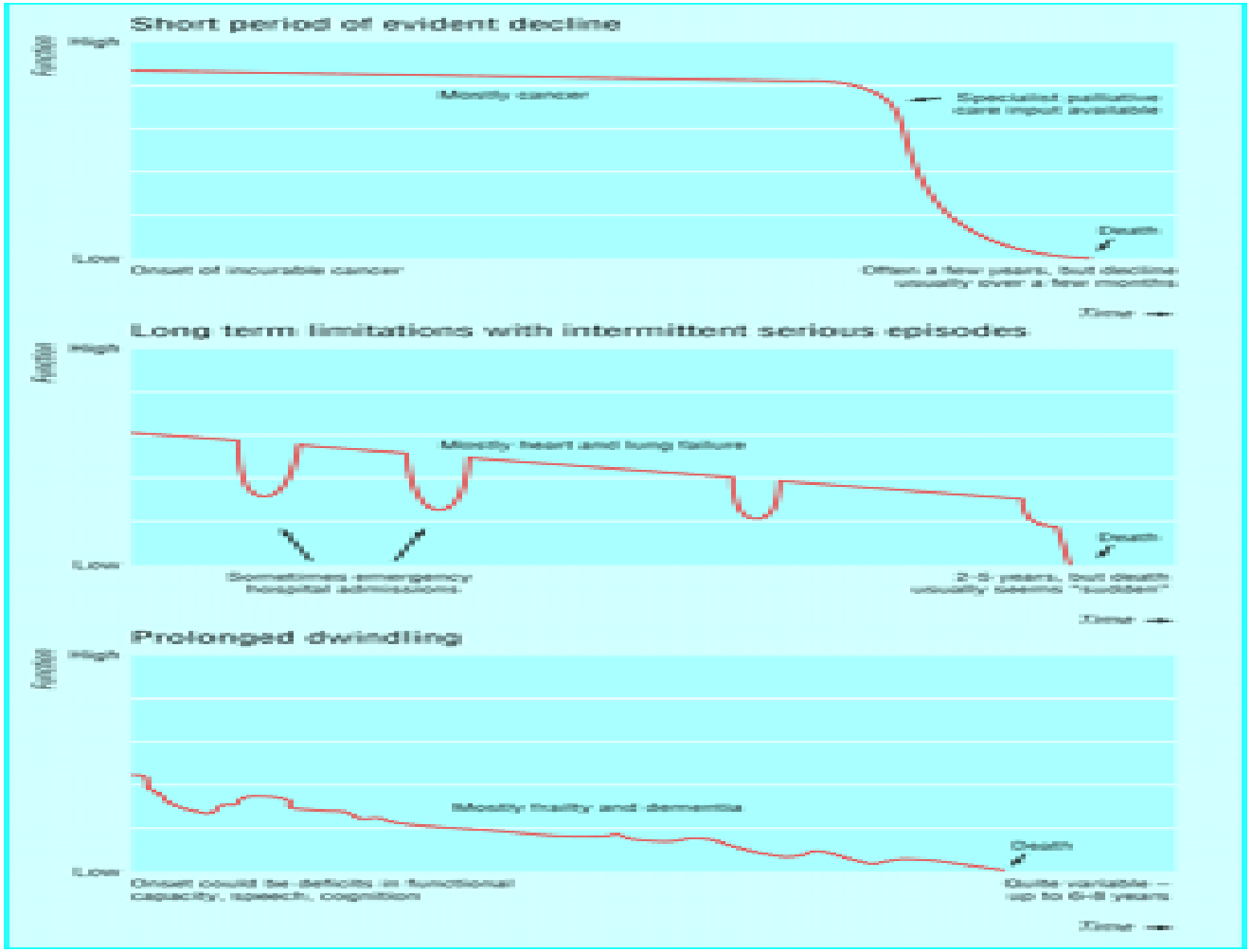
- Currently:
    - 4 inpatient hospices
    - 5 hospice home care
    - 2 hospice day care
    - 5 hospital-based palliative care services

Needs in the advanced stages of chronic disease

How different is chronic disease from cancer?

- Number of patients with non-malignant disease greater than cancer
- Duration of illness longer and less predictable
  -implications on planning services
  -implications on caregivers
- Even at the advanced stages, patients may still benefit restorative care

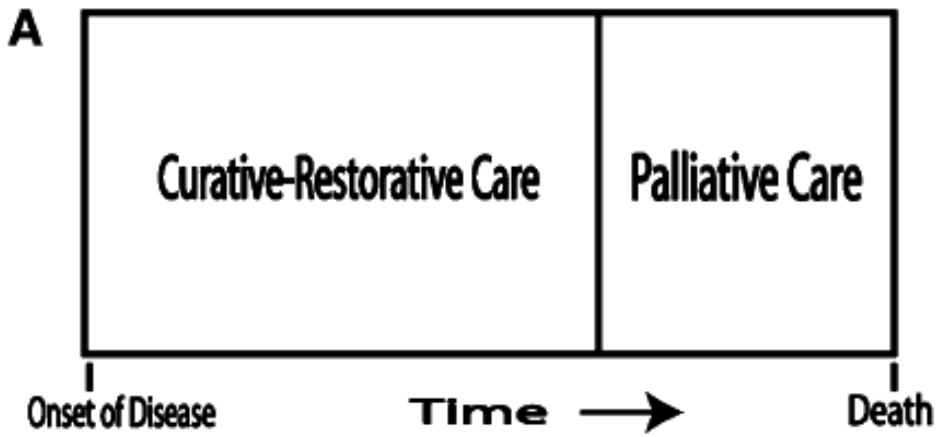
Illness Trajectories



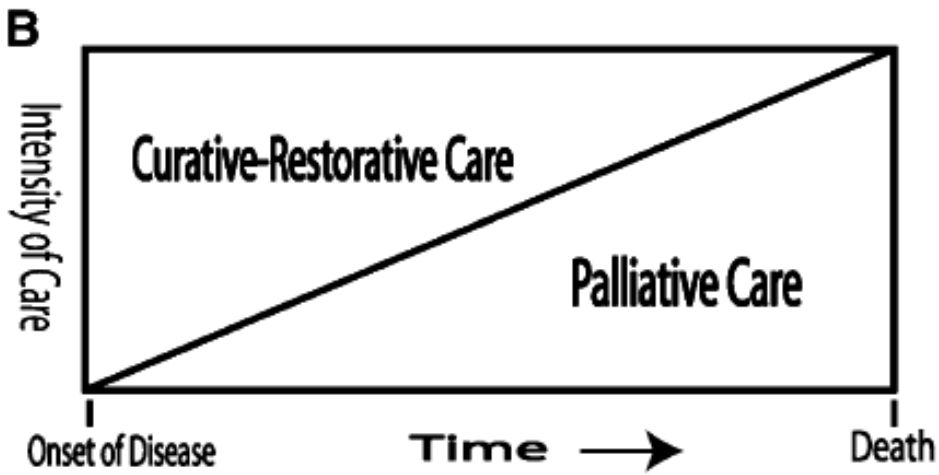
Lynn and Adamson 2003

Models of Palliative Care

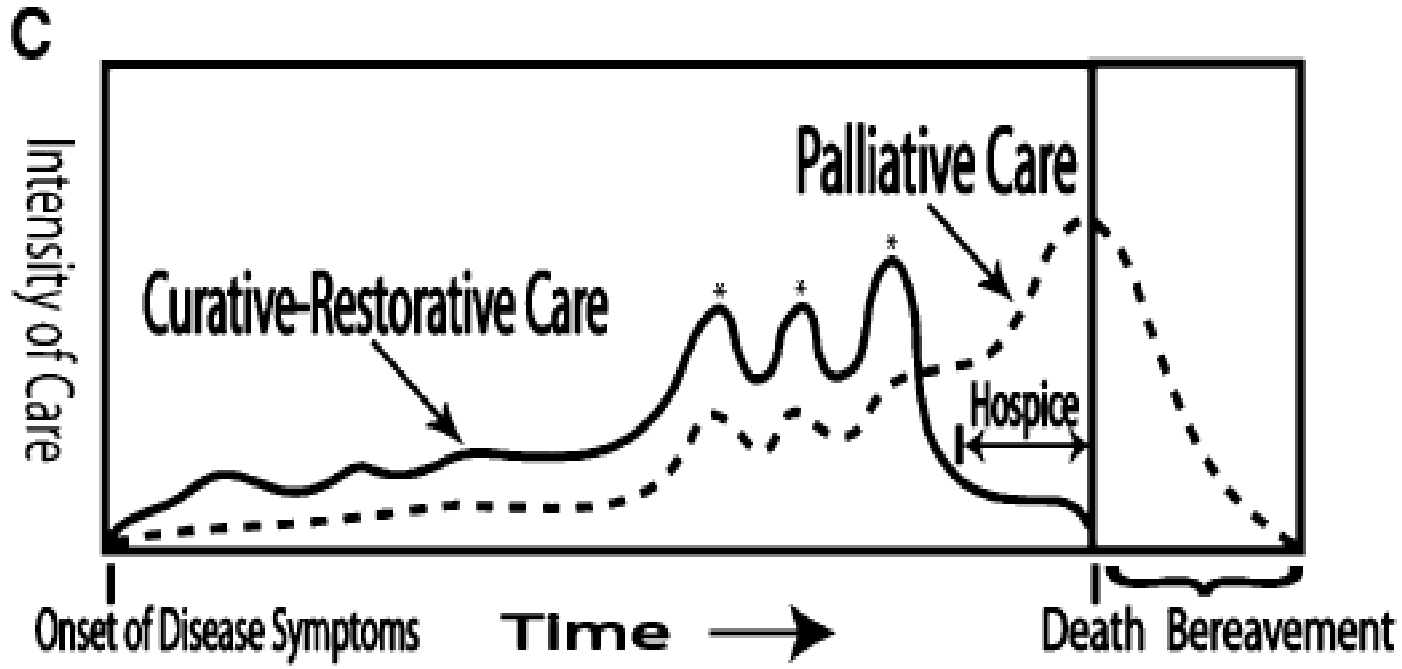
"Bad old days"



"Cancer Care model"



Model of Care for Chronic Diseases

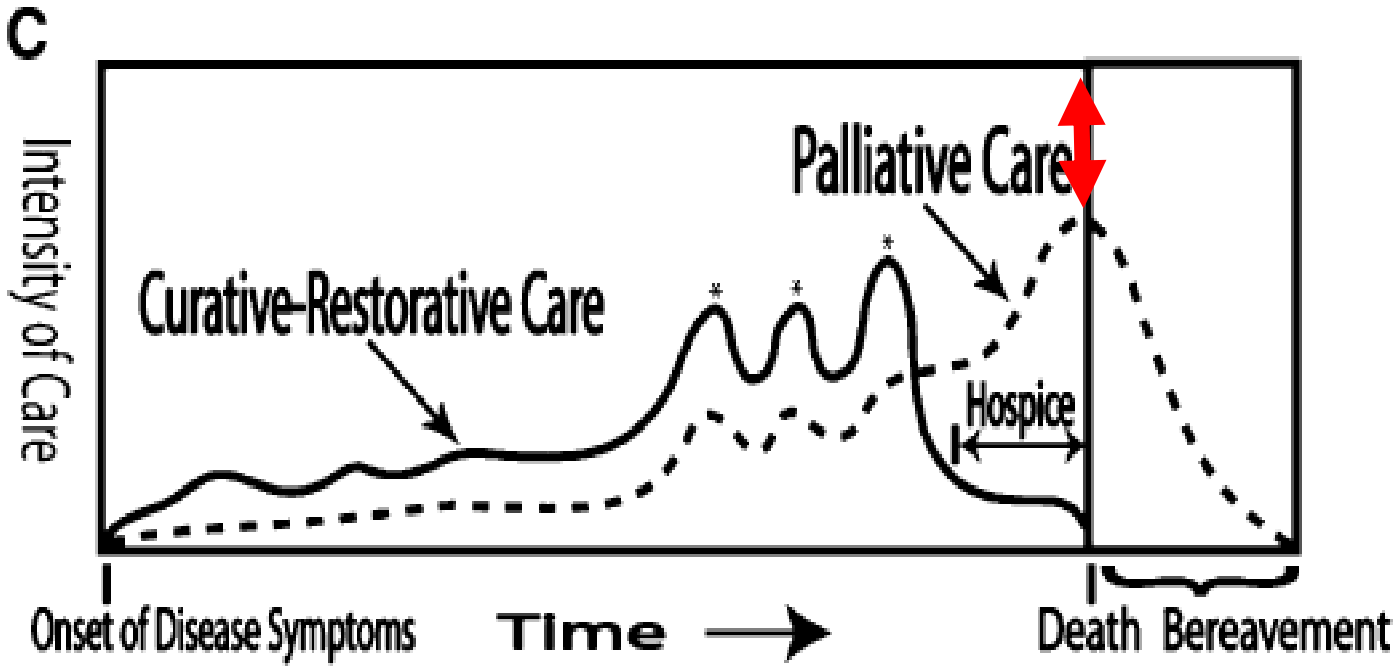


Official Statement of ATS

- Palliative Care should be available to patients at ALL stages of illness and should be individualised based on the needs and preferences of the patient and the patient's family.

- All clinicians who care for patients with chronic or advanced (resp) diseases and/or critical illnesses should be trained in basic competencies in palliative care.

- Recommends that these clinicians should consult with palliative care specialists as appropriate for managing palliative care situations beyond the clinician's level of competence.


C
Intensity of Care
Palliative Care
Curative-Restorative Care
Hospice
Onset of Disease Symptoms
Time
Death
Bereavement

It is not “Chronic Ds Mx” OR “Palliative Mx”

Heart Failure	COPD	ESRF
Ace-inhibitors Beta-blockers Loop diuretics Spironolactone Anti-platelet agents Statins	Steriods Bronchodilators Anticholinergics	Phosphate binders Calcium replacement Antihypertensive Diuretics

It is not “Chronic Ds Mx” OR “Palliative Mx”

Chronic Disease Management that may still be useful:

Throughout disease phase:

- Fluid balance

In patients with acceptable functional status:

- Antibiotics
- Management of anemia

Integrating Palliative Care into Chronic Diseases

- Discussion of illness limitations and prognosis
- Assessment of patient's physical, social, psychological, and spiritual domains, their family and community setting
- Goal setting, and continuous goal adjustment as the illness progresses, including advance care planning
- Grief and bereavement care

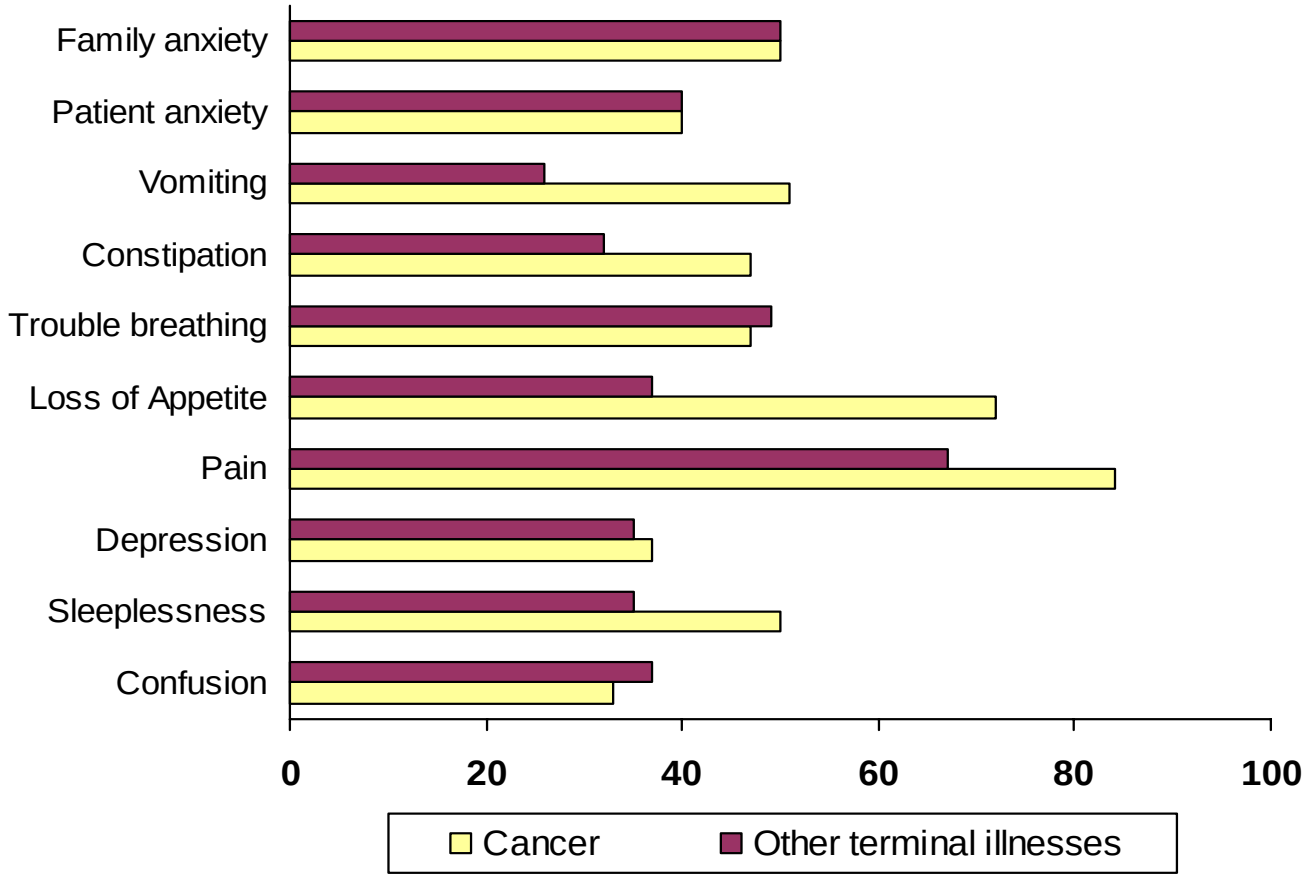
Dying from Chronic Diseases: Are the symptoms different?

Prevalence of symptoms among patients with:

	Non-malignant disease	Cancer
Pain	67%	84%
Trouble breathing	49%	47%
Vomiting/nausea	27%	51%
Sleeplessness	36%	51%
Mental confusion	38%	33%
Depression	36%	38%
Loss of appetite	38%	71%
Constipation	32%	47%
Bedsores	14%	28%

Cartwright & Seale Study, 1991

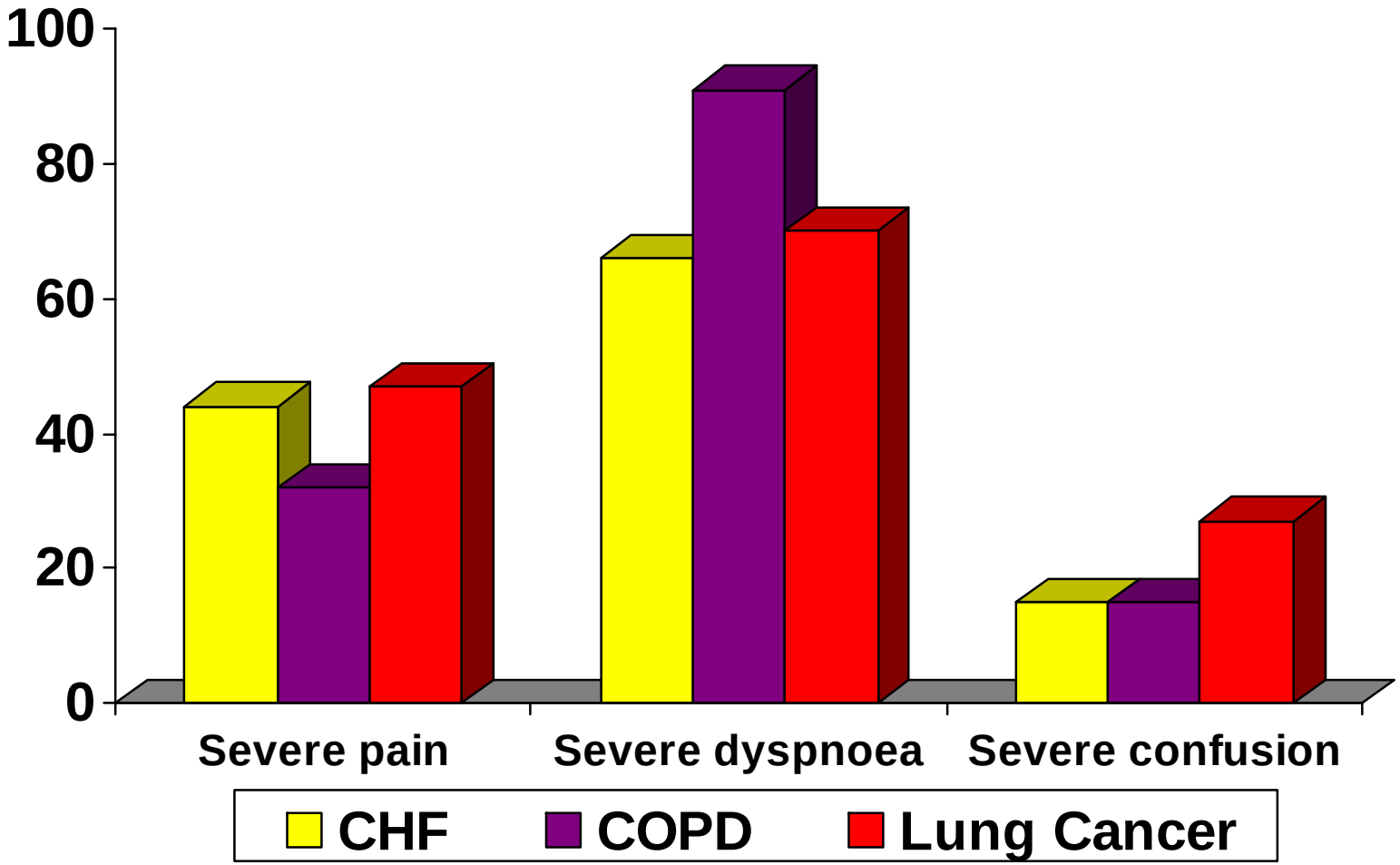
Prevalence of Symptoms in the Last Year of Life



Higginson I. Epidemiologically based needs assessment for palliative and terminal care. Radcliffe Medical Press 1997

A large population based retrospective survey (Addington-Hall et al. 1995. *Regional study of care for the dying*) in the UK of deaths from all causes revealed that many people dying from conditions such as CHF, COPD, or strokes had un-met health and social care needs in the last year of life.

SUPPORT Study: Severe Symptoms Three Days Before Death (by bereaved relative)



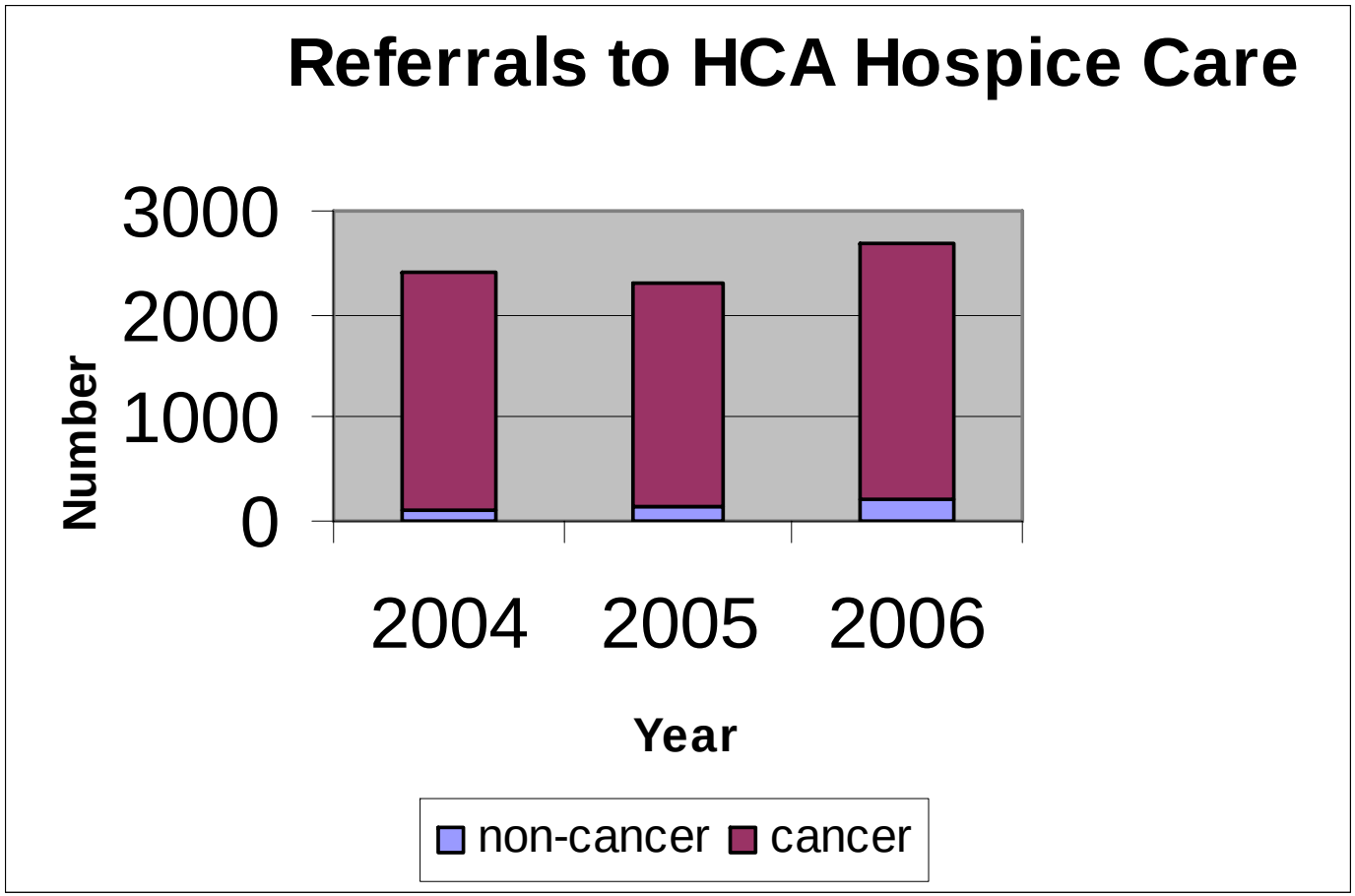
Challenges Faced in Palliation of Chronic Diseases

- Uncertainty of prognosis (implication on hospice funding)
- Appropriate timing of palliative care involvement given the limitation of resources
- Educating other healthcare professionals

Issues in managing advanced chronic diseases

- Many patients in their last year of life have repeated hospitalisations
- Doctors not able to recognise terminal stage of diseases
- No discussion/proper documentation on advance care planning
- Long term residential homes (nursing homes) not equipped nor prepared to look after dying residents
- Hospice more selective in taking in patients with non-cancer diagnosis
    i. Uncertain prognosis
    ii. Funding mechanism

Referrals to Hospice and Pall Care



HCA	4.6%	7.2%	8.6%
TTSH	9.6%	15.0%	20.3%

Non-cancer Referrals

In 2008:

- Hospital-based palliative care service (TTSH):

  22.6% non-cancer, 77.4% cancer

- Home Hospice (HCA):

  9.1% non-cancer, 90.9% cancer

Referrals to major hospice organisations (Aug ’08- Jul ’09)

	HCA (home care and day care)	Dover Park Hospice (inpatient)	Assisi Hospice (home care, day care and inpatient)
Non-cancer	453	29	154
Cancer	2967	444	1029
Total	3420	473	1183
% of non-cancer	13.2%	6.1%	13.0%

Steps taken to improve EOL care for cancer and non-cancer patients

- Education of doctors and nurses to identify patients who require palliative care and to tailor management to their needs in the hospital (TTSH)
- Improve EOL care and ACP in step-down care facilities to reduce unnecessary hospitalisations (Project CARE)
- Home hospice care program for non-cancer patients (NHG ACP)
- Introducing and facilitating ACP with the help of Respecting Choices®

EOL Initiatives in TTSH

- EOL Taskforce set up in 2006 to look into improving care of the terminally-ill in the hospital

- Initiative: Project Omega

Project Omega

- Improvement in EOL care in TTSH through the implementation of the EOL bundle

- 1 Mar 2007 - 31 Jun 2009

Objectives

1. Improvement from baseline (50%) to 70% in the following areas:
   a. Assessment of psychosocial and spiritual needs of dying patients
   b. Assessment of survival risk factors
   c. Assessment of caregiver respite needs

2. Increase in bereaved family's satisfaction with EOL care by 25%

The “surprise” question

Would we be surprised if this patient died in the next 12 months?

Joanne Lynn

Murray S, Boyd K, Sheikh A. Palliative care in chronic illness. BMJ 2005 ; 330: 611-612

EOL Bundle

- Determination of extent of care and resuscitation status with the use of the Extent of Care/DNR form
- Comfort care order set
- Focused nursing patient care record (modification of the Liverpool Care of Dying pathway)

Complemented with educational initiatives

Tan Tock Seng HOSPITAL

Extent of Care and Resuscitation Status Form

Affix Patient Label Here

Ward/ Bed:	Date/Time:	Doctor recording:	*Initial against all alterations. Subsequent updates will supersede orders recorded here. Draw line across current form with date/time/signature if a new form is used.*

(A) CLINICAL STATUS

Is this patient currently on the 'Dangerously Ill List' (DIL)[§]? **Yes / No**

(B) RESUSCITATION AND EXTENT OF CARE STATUS

Is this patient for cardiopulmonary resuscitation (CPR) in event of deterioration[†]?

[ ] **Yes, patient is for aggressive management including ICU.** (skip section C)
[ ] **No, patient is not for cardiopulmonary resuscitation (DNR).** Indicate extent of care below:
- [ ] For High Dependency Unit support
- [ ] For General Ward management including the following as appropriate:
  - Fluid resuscitation Yes / No*
  - Inotropic support Yes / No*

  *If not for fluid resuscitation and inotropic support, patient is for comfort care only.
- [ ] For comfort care only* (including withdrawal of life support)

*If patient is for comfort care only (not for resuscitation) and is DIL:
Review current medications and discontinue non-essential medications.
Review appropriateness of investigations and monitoring.
Review ability to consume oral medications and convert to non-oral means, if appropriate.
Consider standing orders for terminal symptoms.
DIL and DNR patients will be put on NURSING PCR-COMFORT CARE (if in general ward and are not for transfer to HD) or CareVue-Comfort Care (if already in ICU) unless otherwise specified.

(C) IF NOT FOR CPR, REASONS FOR INITIATING THE DNR ORDER

Education of hospital staff

1. Symptom control
2. Psychosocial support when patient is DIL/DNR
3. Terminal discharges
4. Communication of bad news/discussion of extent of care

Symptom Control

- Concentrate on 4 most common symptoms.
  - Deliberate attempt to assess for these symptoms (Not wait for patient to volunteer information / complain).

Assessment/Interventions				
Neurosensory : (N ot A gitated)(A gitated *)				
Check for possible source of agitation e.g. *P* ain/*B* owel/*B*				
Review use of				
Inform doctor if patient remains agitated despite interventions for ≥ **1 hr**				
Respiratory: (*E* asy)(*D* yspnoea*)(*R* attling*)(*O* thers*)				
N asal/***F*** ace/***V*** enti/High Concentration/***N*** on-***R*** ebreathing/***T*** rachy				
Litre / 02%				
Prop up in bed if				
Secretions:***N*** *il/*				
Suction if copious or purulent secretions:*T rachy/ O ropharyngeal*				
SpO2 if patient is dyspnoeic				
Inform doctor is dyspnoea remains unrelieved despite interventions ≥ **1 hr**				
Pain :(***A*** bsent)(***N*** *ot in obvious* ***D*** istress)(***P*** resent*) (***E*** vidence of Distress*)				
Site : _____ *(please specify)*				
Score: _____				
Character*: S* h				
Serve breakthrough analgesia if pain score is ≥ 6 or at patient's request				
Inform doctor if no breakthrough analgesia is ordered or when pain score is ≥ 6 despite breakthrough analgesia				
Nutrition: *(NBM)*(*A* dequate)(*I* nadequate*)(*R* isk*)				
(*Or* al)(***NG*** tub				
NG Suction: *I* n				
Implement enteral tube care				
Presence of ***N*** ausea/***V*** omiting				

Patient is not agitated

Patient is not breathless or rattling

Pain is satisfactorily controlled

Nausea and Vomiting are satisfactorily controlled

Symptom Control

- Treatment plans in place if symptoms are present.
  - “stand-by” or “breakthrough” medication ordered if necessary (a guide is on page 2 of our ExOC form)

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Extent of Care and Resuscitation Status Form

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Ward/ Bed:	Date/Time:	Doctor recording:

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(C) IF NOT FOR CPR, REASONS FOR I

Management of terminal symptoms

Check for easily correctable causes of distress e.g. distended bladder for agitation in drowsy patient. Consider standing orders for symptom control.

Pain	Opioid-naive	S/C Morphine 1.0 – 3.0 mg prn for breakthrough pain followed by S/C Morphine 0.5 – 2.0 mg / hr via syringe pump and titrate (normal liver and renal function). 1/6 of total daily dose as breakthrough dose.
	Opioid non-naïve	Convert to S/C morphine (1/3 of total oral morphine equivalent) if unable to take orally.
Dyspnea	Opioid-naïve	Mist morphine 2.5 – 10 mg q4H + Mist morphine 2.5 – 10 mg prn for breakthrough dyspnea OR S/C morphine 1.0 – 5.0 mg q4H + S/C morphine 1.0 – 5.0 mg prn for breakthrough dyspnea (normal liver and renal function).
	Opioid non-naïve	Increase dose by 50% if still dyspnoiec.
Nausea and vomiting		S/C Metoclopramide 10 mg prn up to q4-8H (if no intestinal obstruction) S/C Haloperidol 0.5 – 1.0 mg prn up to q8H (if centrally-mediated cause)
Terminal agitation		S/C Midazolam 1.0 – 3.0 mg bolus followed by 10 – 30 mg / 24H and titrate. S/C Haloperidol 1.0 – 2.5 mg bolus followed by 5 – 10 mg / 24H.
Terminal rattling		S/C hyoscine butylbromide 20 mg stat followed by 40 – 80 mg / 24H.

Symptom Control

- Review regularly.

- Ask for help if still poorly controlled
  - Escalate to next level
  - Refer to specialty teams

If the patient is DIL and DNR

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Name :
NRIC :
DOB :
Race :
Sex :

PATIENT CARE RECORD - COMFORT MEASURES

For DIL and DNR Patients

Class	Discipline	Ward	Bed

"Automatic" Process

Date / Time					Evaluation/Remarks
Specific Care					
Assessment/Interventions					
Neurosensory : (Not Agitated)(Agitated*)					
Check for possible source of agitation e.g. *P*ain/*B*owel/*B*ladder/*F*ever/*I*nvasive *D*evices					
Respiratory: *(E*asy)(*D*yspnoea*)(*R*attling*)(*O*thers*)					
*N*asal/*F*ace/*V*enti/*N*on-*R*ebreathing/Trachy					
Litre / 02%					
Prop up in bed if dyspnoeic					
Secretions:*N*il/*C*opious*/*P*urulent*.					
Suction if copious or purulent secretions:*T*rachy/ *O*ropharyngeal					
Pain *:(A*bsent)(*N*ot in obvious *D*istress)(*P*resent*) (*E*vidence of Distress*)					
Site : _____ *(please specify)*					
Score: _____ *(please specify)*					
Character: *S*harp/*D*ull/*O*thers					
Serve breakthrough analgesia if pain score is ≥ 6 or at patient's request					

DOCTOR

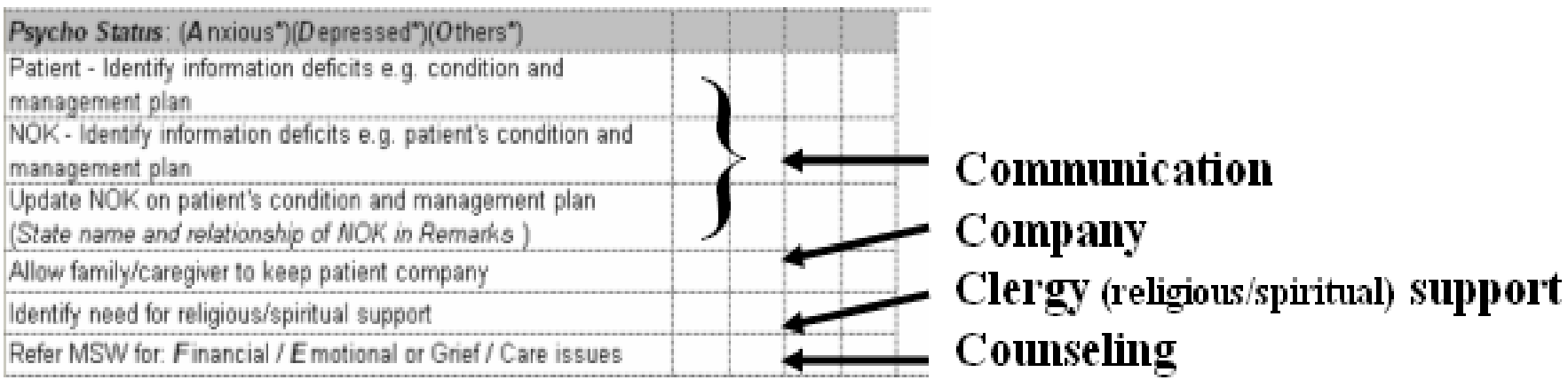
Aims:

- Concentrate on common symptoms at the EOL
- Psychosocial-spiritual care
  - for patient
  - for family

Psychological status

The 4 Cs of “psycho” status

Psycho Status: (*A*nxious")(*D*epressed")(*O*thers")
Patient - Identify information deficits e.g. condition and management plan
NOK - Identify information deficits e.g. patient's condition and management plan
Update NOK on patient's condition and management plan (*State name and relationship of NOK in Remarks*)
Allow family/caregiver to keep patient company
Identify need for religious/spiritual support
Refer MSW for: *F*inancial / *E*motional or Grief / Care issues



"Why is the modern healthcare system failing in meeting the preference of the dying? I believe we should facilitate dying at home for the terminally ill if this is their preference." - Health Minister Khaw Boon Wan

Dying at home: Ministry to look into changing rules

Health-care system 'should facilitate those who have a preference to do so'

By Judith Tan

THE Health Ministry is moving into new territory – death.

It will study what it will take for more people to die a dignified death at home, instead of in a hospital or hospice, said Health Minister Khaw Boon Wan yesterday.

Right now, just under three deaths in every 10 take place at home. Most people die in hospitals.

"Why is the modern healthcare system failing in meeting the preference of the dying? I believe we should try to facilitate dying at home for the terminally ill if this is their preference," said Mr Khaw.

An ageing population and all its related concerns – staying healthy and active, and having enough savings – have become key concerns of the Government.

Yesterday, Mr Khaw added one more – dealing with death.

End-of-life issues are deeply emotional, but talking about them helps, he said, recalling his recent visit to the Ogimi village in Okinawa, Japan, which has a population with one of the highest percentage of centenarians in the world.

"They realise that treating death as taboo does a disservice to both the dying and the living, adding to loneliness, anxiety and stress for all," he said.

For a start, his ministry will identify the obstacles, such as the reluctance of some doctors to certify a death at home and the extra costs involved.

For instance, while subsidies help cover medical costs for those dying in hospitals, these subsidies stop once they go into home hospice care, he said. It is a similar case for insurance coverage.

If need be, rules and processes that hinder dying at home will be changed.

Recounting his grandmother's death of old age at home, Mr Khaw said that there was a time when death was an integral part of family life.

"She had never been hospitalised, and the hospital was the last place she would want to draw her last breath," he said.

In a way, modern health care has made dying a lonelier process, he told reporters after he opened the Children Hospice International 18th World Congress yesterday,

The three-day congress, attended by 150 participants from 25 countries, deals with treating terminally-ill children and hospice care.

Mr Khaw said he wants to make hospice and home palliative care – specialised care of people who are dying – part of the health care delivery system.

The first step is to make palliative medicine an attractive sub-specialty – something many doctors had been lobbying for for many years.

"This way, we can start thinking about the needs and demands of this sub-specialty, such as how many more people we need to train," he said.

As of last year, there were five doctors in Singapore with in-depth training in this field.

Palliative care will also be extended beyond cancer to other terminal stage chronic conditions.

Taking care of the dying is a labour- and skill-intensive service, so manpower needs will have to be planned for and career prospects improved to make it attractive.

Singapore is not alone in confronting these issues. Last month, a report by the National Health Service for London devoted a section to end-of-life care and lamented the lack of discussion in society about "what constitutes a good death", noted Mr Khaw.

The report recommended getting patients to declare where they prefer to die, a development which Singapore can study too, he said.

A long-time advocate for terminally ill patients to die at home, HCA Hospice Care's president Seet Ai Mee agreed.

Citing her experience when her father was dying from cancer, she said he summoned all his family members and told them his last wishes. That helped, she said.

"We didn't have to second-guess him or ourselves. It also helped keep the harmony of the children and grandchildren," she said.

juditht@sph.com.sg

PALLIATIVE CARE GIVES PEACE TO TERMINALLY ILL PATIENTS, HOME H6

NHG ACP

- National Healthcare Group Advance Care Programme (NHG ACP)
- 3-year pilot program fully funded by the Ministry of Health
- Provide home hospice care to a group of patients with non-cancer diagnoses
- End-stage heart failure, end-stage renal failure and advanced COPD

NHG ACP

- Program was initiated because of unmet needs of patients with chronic diseases like COPD and chronic heart failure

- Emphases of program: home medical and nursing support, telephone surveillance, advance care planning, terminal care at home, and grief and bereavement support

Project CARE

- 3-year pilot project to improve EOL care in NH
- Shortlisted 9 nursing homes around the hospital
- Team consists of doctors, nurses and counsellors

Project CARE

- Aims:

  1. Educate and train NH staff (changing mindsets)

  2. Conduct ACP discussions with residents and their NOK

  3. Manage acute medical conditions in NH (24/7)

  4. Manage terminally-ill patients in NH

Advance Care Planning

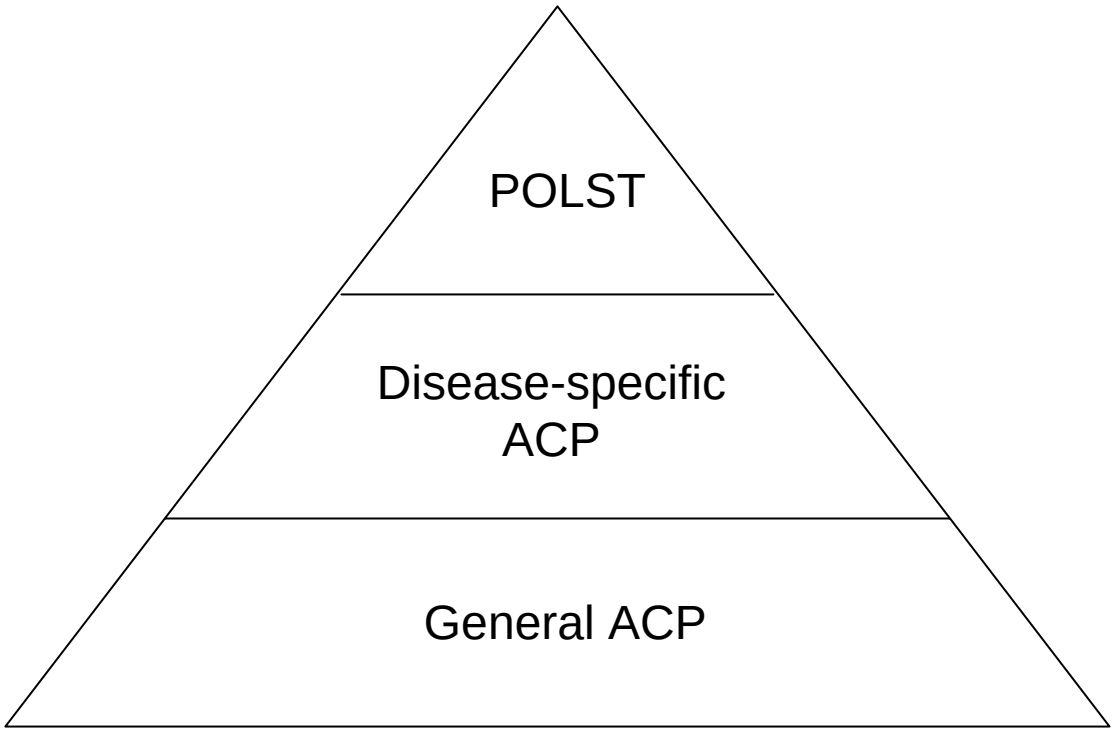
Engaging Respecting Choices® from Wisconsin, US

1. Train facilitators to conduct ACP discussion with patient/family

2. Look into system change to incorporate ACP as part of medical care and to ensure that this is portable across all care settings

3. Educating both healthcare workers and the public on importance of ACP as part of good EOL care

Components of ACP discussion



POLST: Physician Order for Life-Sustaining Treatment

Acknowledgement

- Dr Angel Lee, Senior Consultant, TTSH
- HCA Hospice Care
- Singapore Hospice Council

Thank you