



# DEFINING MED

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## Supportive & Palliative Care

**How to Manage Advanced CKD in Primary Care**

**Palliative Care for Dementia: A Guide for GPs**

**Enhancing Community Care for the Frail Elderly**

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# Advanced Chronic Kidney Disease: Management in Primary Care and Renal Supportive Care

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**General practitioners (GPs) are often the first port of call when patients with chronic kidney disease see a deterioration in kidney function – placing them in prime position to guide the patient journey and decision making process. Read all about how GPs in the primary care setting can start important conversations on long-term management, treat common symptoms, and identify when specialist referral for renal supportive care would be beneficial.**

## **CHRONIC KIDNEY DISEASE**

### **Increasing disease burden in Singapore**

The burden of chronic kidney disease (CKD) among the Singaporean population has been increasing in recent years, contributed to by diabetes and an ageing population. Diabetic kidney disease is the main cause of kidney failure for patients on dialysis in Singapore.

The number of patients newly diagnosed with stage 5 chronic kidney disease (CKD5), as defined by an estimated glomerular filtration rate (eGFR) of < 15 mL/min/1.73m<sup>2</sup>, serum creatinine ≥ 500 µmol/L or initiation of renal replacement therapy, has increased from 1,586 in 2011 to 2,079 in 2019.<sup>1</sup>

### **Management of advanced CKD**

Patients with advanced CKD (CKD stage 4 to 5) are assessed by renal teams through a process of shared decision making, to determine a long-term treatment plan which may include:

- Dialysis
- Kidney transplant
- Comprehensive conservative care

While dialysis confers a significant survival advantage for patients with CKD5 in general, this advantage is lost

in patients who are **older (> 80 years old)<sup>2</sup>, with poor functional status and/or a high comorbidity burden.** Some patients may find dialysis to be burdensome and experience unacceptable reduction in their quality of life.

Therefore, it is important to recognise this group of patients and consider whether a supportive care approach would be more beneficial.

**General practitioners (GPs) play an important role in the holistic management of patients with CKD.**

This will be even more so with the Ministry of Health's recommendation for each household to have their own family doctor from 2023.

This article shares the concept of renal supportive care and explores how GPs may support their patients who have advanced CKD.

## **WHAT IS RENAL SUPPORTIVE CARE?**

**Renal supportive care (RSC)** is a clinical approach that aims **to improve the quality of life** for patients with advanced CKD by integrating palliative care principles, knowledge and skills into routine renal care.

RSC can be provided at any part of the patient journey, including for those who choose dialysis (**Figure 1**).



Figure 1 Renal supportive care encompasses all parts of the CKD5 patient journey<sup>3</sup>

**Comprehensive conservative care**<sup>4-5</sup> is a holistic patient-centric approach which **supports patients who opt for non-dialytic therapy**. For patients who are unlikely to benefit from dialysis or kidney transplantation as a treatment choice, comprehensive conservative care is an option that should be provided. Patients are assured of continued medical care so they do not go away with the notion that ‘nothing can be done’, and receive treatment plans that are aligned with their priorities and values.

### WHAT IS COMPREHENSIVE CONSERVATIVE CARE?

**Holistic patient-centered care for patients with CKD5 which includes:**

- Interventions to delay progression of kidney disease and minimise risk of adverse events or complications
- Shared decision making
- Active symptom management
- Detailed communication, including advance care planning (ACP)
- Psychological and spiritual care
- Culturally-aligned social and family support

Comprehensive conservative care does not include dialysis.

Table 1 Definition of comprehensive conservative care<sup>4-5</sup>



## CASE STUDY

### Background

Mdm T is an 80-year-old woman with CKD5 secondary to diabetic kidney disease and concomitant hypertension, hyperlipidaemia and gout. She was referred by her nephrologist to the RSC clinic for symptom management and psychosocial support.

#### Laboratory results:

- eGFR 7ml/min
- Creatinine 492 µmol/L
- Urea 28.4 mmol/L
- Potassium 3.8 mmol/L
- Bicarbonate 22.4 mmol/L
- Albumin 37 g/L
- Calcium 2.63 mmol/L
- Phosphate 1.63 mmol/L
- Hb 11.0 g/dL
- Transferrin saturation 31.3%

### Symptom and psychosocial assessment

She had mild fatigue, low appetite and poor sleep. There were no symptoms of uraemia or fluid overload. She had low mood due to her husband's cognitive decline and behavioural issues. While her mood gradually improved following her husband's admission to a nursing home, her family still felt guilty about the decision.

### Treatment decision and goals of care discussion

She was aware of her CKD5 status and the potential for complications. She readily stated that she did not want dialysis as she was old and life prolongation was not meaningful to her. She had loss of weight but was not keen on further investigations.

She preferred to focus on comfort and symptom control, but was willing to be hospitalised for treatment if deemed beneficial. She decided on inpatient hospice as her preferred place of care and death when her condition deteriorated.

### Management plan

1. Her medication list was reviewed and adjusted, taking into consideration her symptoms, pill burden and whether she would have the time to benefit from taking the medications.
2. As her mood was improving, she did not require antidepressants.
3. She was planned for referral to Assisi Hospice Day Care.
4. The RSC team planned to follow up on Mdm T and her family's coping during subsequent appointments.

### Case Progress

**SEP 2019**

- **eGFR 7 ml/min**
- First consult at RSC clinic

**NOV 2019**

- **eGFR 5 ml/min**
- Family had brought her on an overseas holiday; mood was better
- Had mild exertional dyspnoea and slightly worse appetite
- Given standby mist morphine 2.5 mg Q8H PRN for dyspnoea
- Not keen on hospice day care; referred to community palliative nursing

**JAN 2020**

- **eGFR 5 ml/min**
- On follow-up with community palliative nursing
- Condition was stable; mood was good
- Referred to Assisi Home Hospice in view of declining GFR

**SEP 2020**

- **eGFR 3 ml/min**
- Admitted to Singapore General Hospital (SGH) for fluid overload and anaemia
- Treated with intravenous iron and recormon
- Frusemide dose increased

**OCT 2020**

- **eGFR 3 ml/min**
- Developed more fluid overload and uraemic symptoms
- Still able to manage at home and declined admission to inpatient hospice
- Given oral haloperidol 0.5 mg Q8H PRN for nausea
- Explored her needs and coping with her deterioration

**NOV 2020**

- **eGFR 3 ml/min**
- Much more fatigued, Hb 6.2
- Admitted to SGH and transfused as she was still functionally well and living alone; felt better after transfusion

**DEC 2020**

- Admitted to Assisi Inpatient Hospice
- Died in end December 2020

## SGH Low Clearance Clinic and Renal Supportive Care Clinic

The SGH Department of Renal Medicine set up the multidisciplinary **Low Clearance Clinic (LCC)** in August 2015 with the aim of better preparing CKD patients for end-stage kidney failure and their long-term treatment plan.

Patients with GFR of < 20 ml/min are managed by a multidisciplinary team consisting of nephrologists, advanced practice/specialist nurses, dietitians, pharmacists, social workers and renal coordinators/case managers.

The **Renal Supportive Care Clinic** was started in August 2016 and is embedded in the multidisciplinary LCC service. The RSC clinic team consists of a palliative care consultant, renal nurse clinician with training in RSC, ACP coordinator and pharmacist.

Presently, patients who choose comprehensive conservative care **with eGFR < 9 ml/min or who have significant supportive and palliative care needs** such as poor symptom control and psychosocial issues are referred for a RSC clinic consult.

### Low Clearance Clinic



Renal nurse



Medical social worker



Nephrologist



Pharmacist



Dietitian

### Renal Supportive Care Clinic



Palliative care doctor



Renal nurse clinician trained in RSC



ACP coordinator



Pharmacist

### WHAT WE DO AT THE RSC CLINIC

After every RSC session, the team participates in a **multidisciplinary team meeting** to discuss and identify 'worry board' cases who need closer follow-up or interventions. The RSC team also participates in the multidisciplinary haemodialysis rounds to provide supportive care input for complicated dialysis patients.

### OVERVIEW OF RSC CLINIC CONSULT

<b>Symptom assessment and management</b>	<ul style="list-style-type: none"> <li>Manage symptoms of CKD such as those from fluid overload and uraemia</li> <li>Manage other symptoms such as pain, constipation, etc.</li> <li>Monitor for worsening symptom burden and functional decline</li> <li>Prognostication</li> </ul>
<b>Optimised medical management of CKD and comorbidities</b>	<ul style="list-style-type: none"> <li>Chronic disease management</li> <li>Discussion with nephrologist as needed</li> <li>Dietitian support in the same setting</li> </ul>
<b>Psychosocial assessment and support</b>	<ul style="list-style-type: none"> <li>Dedicated renal medical social worker to assess patient on the same day if needed</li> </ul>
<b>Medication review and deprescribing</b>	<ul style="list-style-type: none"> <li>Pharmacist to help with medication reconciliation, counselling and collaboration on deprescribing</li> </ul>
<b>Support for family and caregivers</b>	<ul style="list-style-type: none"> <li>Referrals to appropriate community partners such as community nurses or hospice services</li> </ul>
<b>Advance care planning</b>	<ul style="list-style-type: none"> <li>ACP facilitator to sit in during consult and document the ACP discussion</li> </ul>

Table 2

## What GPs Can Do in Primary Care

GPs who have been following up on their patients with CKD are often the first port of call when their kidney function begins to decline. Having built strong doctor-patient relationships, **GPs are well-placed to begin the conversation about their patients' values and priorities.** This will help patients to navigate the decision making process when it comes to considering whether dialysis or comprehensive conservative care is right for them.

### GP CONSULT FRAMEWORK FOR PATIENTS WITH CKD5

<b>1. Identify patients with CKD5 or advancing CKD</b>	<ul style="list-style-type: none"> <li>Assess for symptoms of fluid overload or uraemia (See <b>Table 5</b> for management of common symptoms in advanced CKD)</li> <li>Explain complications related to CKD and expected disease trajectory</li> </ul>
<b>2. Review treatment plan</b>	<ul style="list-style-type: none"> <li>Review medications to optimise chronic disease management and minimise polypharmacy, by stopping medications with limited benefit</li> </ul>
<b>3. Discuss treatment preferences and goals of care</b>	<ul style="list-style-type: none"> <li>Discuss the patient's values and priorities, and whether interventions such as dialysis would achieve their desired life goals</li> <li>Consider discussing and completing an ACP</li> </ul>
<b>4. Consider referral to a palliative care specialist if complex symptoms or psychosocial issues present</b>	<ul style="list-style-type: none"> <li>Patients who are experiencing increasing distress from symptoms or complex psychosocial issues may benefit from assessment and multidisciplinary management from a palliative care specialist</li> </ul>
<b>5. Discuss the long-term care plan if decided on non-dialytic treatment</b>	<ul style="list-style-type: none"> <li>Review their psychosocial background and care setting</li> <li>Pre-empt the patient and/or their family on the potential need for hospice services</li> <li>Explore (if relevant) whether the patient and their family have planned for a Lasting Power of Attorney (LPA) and will</li> </ul>
<b>6. Refer to hospice services if deteriorating on conservative care</b>	<ul style="list-style-type: none"> <li>Consider referral to home or inpatient hospice services for patients developing worsening symptoms or with poor psychosocial support</li> <li>Singapore Hospice Council common referral e-form: <a href="http://www.singaporehospice.org.sg/shc-common-referral-form">www.singaporehospice.org.sg/shc-common-referral-form</a></li> </ul>

Table 3

### PREVALENCE OF SYMPTOMS IN END-STAGE KIDNEY DISEASE<sup>4</sup>

Symptom	Prevalence	Symptom	Prevalence
<b>1. Fatigue</b>	71%	<b>6. Insomnia</b>	44%
<b>2. Pruritus</b>	55%	<b>7. Anxiety</b>	38%
<b>3. Constipation</b>	53%	<b>8. Nausea</b>	33%
<b>4. Anorexia</b>	49%	<b>9. Restless legs</b>	30%
<b>5. Pain</b>	47%	<b>10. Depression</b>	27%

Table 4

## MANAGEMENT OF COMMON SYMPTOMS OF CKD

Symptom	Management
<b>Fatigue</b>	<ul style="list-style-type: none"> <li>• Screen for causes of fatigue (e.g., uraemia, fluid overload, anaemia, sleep apnoea, other comorbid conditions such as heart failure)</li> <li>• Iron supplementation and referral to a renal specialist for erythropoiesis-stimulating agents</li> <li>• Advise on non-pharmacological measures including energy conservation strategies and exercise</li> </ul>
<b>Anorexia</b>	<ul style="list-style-type: none"> <li>• Screen for depression, taste disorders, constipation or diarrhoea</li> <li>• Nutritional counselling and supplementation as required</li> <li>• Review medications for polypharmacy and adverse effects</li> <li>• Review for and treat nausea and/or dyspepsia               <ul style="list-style-type: none"> <li>– <b>Nausea:</b> Metoclopramide 10 mg Q8H PRN or haloperidol 0.5 mg Q8H PRN</li> <li>– <b>Dyspepsia:</b> Omeprazole or famotidine</li> </ul> </li> <li>• Consider antidepressants such as mirtazapine if there is concomitant depression</li> <li>• Presently, there is no evidence for the use of appetite stimulants such as megestrol in CKD5 patients on conservative management</li> </ul>
<b>Pruritus</b>	<ul style="list-style-type: none"> <li>• Assess for and treat dermatological causes such as eczema and xerosis with topical emollients</li> <li>• Control calcium and phosphate levels</li> <li>• Refer to a renal specialist for treatment of hyperparathyroidism</li> <li>• Systemic therapy with gabapentin/pregabalin or mirtazapine</li> <li>• Start at lower doses particularly in elderly patients, and monitor for adverse effects</li> <li>• Starting doses:               <ul style="list-style-type: none"> <li>– Gabapentin 100 mg ON, maximum 300 mg/day</li> <li>– Pregabalin 25 mg ON, maximum 100 mg/day</li> <li>– Mirtazapine 7.5 mg ON</li> </ul> </li> <li>• Night dose of antihistamine (e.g., hydroxyzine) for light sedation to reduce scratching</li> </ul>
<b>Pain</b>	<ul style="list-style-type: none"> <li>• Assess and treat cause of pain</li> <li>• Avoid nephrotoxic medications such as nonsteroidal anti-inflammatory drugs (NSAIDs)</li> <li>• Use weak opioids such as tramadol with caution, limiting dosage to a maximum of 100 mg/day</li> <li>• Consult a palliative care physician for advice if strong opioids are needed</li> </ul>

**Table 5**

## WHEN GPs SHOULD REFER TO THE RSC CLINIC

1. Difficult symptom burden and treatment
2. Challenges in decision making for long-term treatment plan, with complex clinical situations or psychosocial issues
3. Multidisciplinary team support required
4. For assistance in ACP and end-of-life care

### Referral process

Currently, the RSC clinic is only open to referrals for patients known to the Department of Renal Medicine, SGH.

If you have an advanced CKD patient who may benefit from a consult with a palliative care specialist, you may contact the **SGH GP Appointment Hotline** at **6326 6060** to make an appointment with the Internal Medicine Supportive and Palliative Care Service, which provides specialist palliative care support for the RSC clinic.

**GPs who would like more information may contact the following palliative care physicians in the RSC team:**

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## CONCLUSION

The burden of chronic kidney disease in our population is significant. With a better understanding of renal supportive care, GPs can play an important part in their patients' decision making process and journey by starting the conversation on long-term CKD management, reviewing chronic disease management and considering specialist referral for shared care.

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**6326 6060**

**Changi General Hospital**  
**6788 3003**

**Sengkang General Hospital**  
**6930 6000**

**KK Women's and Children's Hospital**  
**6692 2984**

**National Cancer Centre Singapore**  
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# The Palliative Approach to Dementia: A Practical Guide for General Practitioners

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**A palliative approach to dementia care, which supports the patient and their family from diagnosis to the end of life across all care settings, is crucial to optimising quality of life for dementia patients. Read all about how general practitioners have a key role in supporting patients and their caregivers in every phase of the dementia journey.**

### DEMENTIA IN SINGAPORE

In Singapore, one in ten people above the age of 60 suffers from dementia. This corresponds to approximately 82,000 people in 2018, and this number is projected to increase to 152,000 by 2030.<sup>a</sup>

This article highlights the palliative approach to dementia care and emphasises early advance care planning (ACP) to facilitate treatment decisions in the later stages.

### PROGNOSTICATION

Prognostication guides conversations on ACP and goals of care discussions, and facilitates referral to hospice care.

A validated and commonly used prognostication tool for Alzheimer’s disease (AD) dementia is the Alzheimer’s **Functional Assessment Staging Test (FAST) scale<sup>b</sup>** (Table 1). This provides an overview of the disease course in AD, in which a patient who has reached FAST stage 7a is likely to have a prognosis of less than six to 12 months.

## FUNCTIONAL ASSESSMENT STAGING TEST (FAST) SCALE

Stage	Stage Name	Characteristic	Stage	Stage Name	Characteristic
1	Normal Ageing	No deficits whatsoever	6a	Moderately Severe Dementia	Needs help putting on clothes
2	Possible Mild Cognitive Impairment	Subjective functional deficit	6b		Needs help bathing
			6c		Needs help toileting
3	Mild Cognitive Impairment	Objective functional deficit interferes with a person's most complex tasks	6d		Urinary incontinence
			6e		Faecal incontinence
4	Mild Dementia	Instrumental activities of daily living (ADLs) become affected, such as paying bills, cooking, cleaning, travelling	7a	Severe Dementia	Speaks 5-6 words during the day
			7b		Speaks only 1 word clearly
			7c		Can no longer walk
			7d		Can no longer sit up
5	Moderate Dementia	Needs help selecting proper attire	7e		Can no longer smile
			7f		Can no longer hold up head

Table 1 Adapted from Medical Care Corporation<sup>b</sup>

## HOW GPs CAN ADOPT A PALLIATIVE APPROACH TO DEMENTIA CARE

### 1. Upon Diagnosis of Dementia

#### Breaking the diagnosis

At diagnosis, patients are faced with the prospect of loss of identity, abilities and independence. Their families are also confronted with the potential loss of their relationship with the patient and the uncertainty of future caregiving burden.

As such, a **sensitive approach** (e.g., utilising the SPIKES communication model<sup>1</sup> as in **Case Vignette A**) to breaking bad news of the diagnosis of dementia is helpful.

### CASE VIGNETTE A

The GP, Dr A, diagnoses Mdm L with dementia. He sits alongside Mdm L and maintains eye contact with her.

#### Asking open-ended questions

He asks her open-ended questions about how she wants to receive information: "Would you like to hear everything that is going on, or just the big picture? Do you want other people around you when you are receiving information, or would you prefer to hear the news by yourself?"

Mdm L says she would like to hear everything that is going on, with her son who is next to her.

Dr A asks her what she thinks is causing the symptoms of forgetfulness and difficulty with cooking. Mdm L is silent.

#### Breaking the diagnosis

Dr A asks, "After hearing your story and examining you, I would like to talk to you about what is going on. Would that be OK?" Mdm L nods.

Dr A says, "I'm afraid I have some difficult news to share." He stops to look at Mdm L, who remains silent and looks expectantly at him. "I'm concerned that you have dementia." Mdm L looks sad.

#### Addressing concerns

Dr A says, "I can see that this is making you sad. What is the most difficult part of this for you?" Mdm L says she is worried about being a burden to her son, as he has already been helping her more in the past year, despite being busy with his work and children.

Dr A says, "I hear your worry about being a burden. This is something many patients worry about. But, what if instead of your son, it was you who were his caregiver – would you feel that it is a burden or an honour to care for someone you love?"

Mdm L's son adds, "Mom, you are not a burden. If I know how to help, it is better than now when I feel so helpless and worried about you."

Dr A then asks Mdm L if she is ready to discuss the treatment plan.

## 2. In the Earlier Stages of Dementia

### Symptom management and caregiver support

Treatment of dementia in the earlier stages is usually focused on:

#### A. Pharmacological use of cholinesterase inhibitors (e.g., donepezil, rivastigmine) and NMDA receptor antagonists (e.g., memantine)

- Consider stopping the agents if the patient is unable to tolerate them due to side effects, or if the patient demonstrates a greater-than-expected decline after at least one therapeutic trial (for at least six months, with at least eight weeks of maximum / most tolerated dose).
- Consider stopping other drugs that may exacerbate cognitive impairment (e.g., anticholinergic drugs).

#### B. Non-pharmacological measures

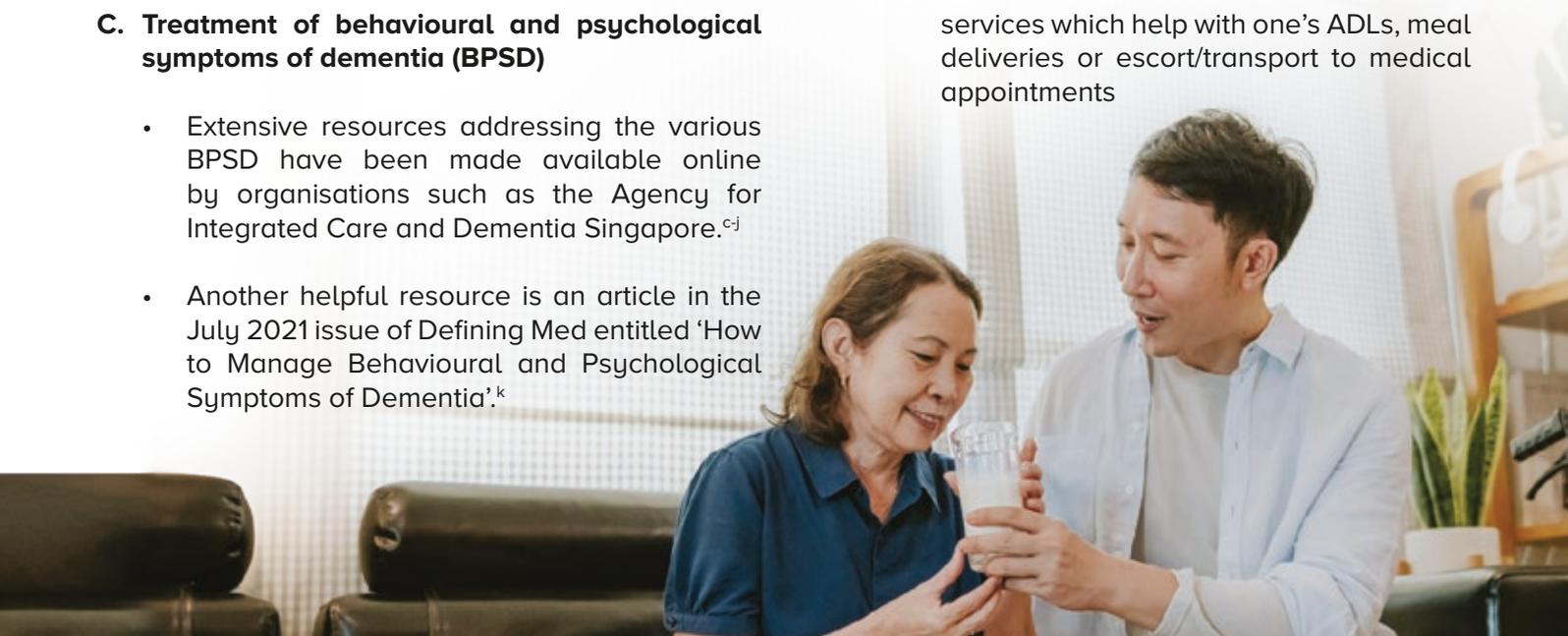
- These include optimising cardiovascular risk factors, regular aerobic exercise, engaging the patient in cognitively-demanding leisure and social activities and a Mediterranean diet.

#### C. Treatment of behavioural and psychological symptoms of dementia (BPSD)

- Extensive resources addressing the various BPSD have been made available online by organisations such as the Agency for Integrated Care and Dementia Singapore.<sup>c,j</sup>
- Another helpful resource is an article in the July 2021 issue of Defining Med entitled 'How to Manage Behavioural and Psychological Symptoms of Dementia'.<sup>k</sup>

#### D. Caregiver education and support

- Caregivers may require continued clarification of their concerns, including those regarding the patient's medication regimen, which should be simplified wherever possible.
- Consider introducing caregivers to caregiver support groups<sup>l</sup>, as well as referrals to nurses, physical therapists and occupational therapists for caregiver training, assistive aids and adaptive strategies in caregiving.
- Where caregivers are not able to meet the patient's care needs on their own or need respite, available care options include:
  - Day care or nursing home respite care<sup>m</sup>
  - Centre-based services (e.g., dementia day care)
  - Private hourly-rated caregivers (e.g., Jaga Me, Homage, Comfort Keeper, Active Global)
  - Home personal care, meals-on-wheels, and medical escort – home-based services which help with one's ADLs, meal deliveries or escort/transport to medical appointments



### WHEN GPs SHOULD REFER

**If the patient has symptoms refractory to the GP's efforts, consider referral to a neurologist, geriatrician or psychiatrist for shared care.**

In addition to optimising medical treatment, the specialist can offer a multidisciplinary team approach with the nursing and allied health teams for swallowing, nutrition, physical and occupational therapy assessments, as well as psychosocial and spiritual care.

### Advance care planning

While the patient still has mental capacity, ACP (illustrated in **Case Vignette B**) including specific discussions on dysphagia management would help to ensure that subsequent medical care is consistent with the patient's preferences.

Patients are also advised to appoint a **lasting power of attorney (LPA)**.<sup>n</sup>

## CASE VIGNETTE B

### Advance care planning

Dr A did ACP over time, pacing with Mdm L and her son, and provided them with a 'road map' so they understood about her current FAST staging, signs to look out for that would suggest progression to a more advanced stage, the pace of disease progression, and where she was heading in terms of her function relating to ADLs, cognition and communication.

Dr A also kept Mdm L and her son informed on the management options for dementia and the symptoms that she was experiencing.

### Fulfilling the patient's wishes

Dr A ensured that the present and future medical care decisions were aligned with their goals of care, at times negotiating on behalf of Mdm L or her son.

Towards the end when Mdm L had no mental capacity to make decisions on her medical care, her son was grateful that he knew what she would have wanted.

She had told him she wanted to have her meals orally, and that should she be reliant on others for her toileting needs or unable to communicate meaningfully through gestures, she would want medical care to focus on her comfort rather than prolongation of life.

## 3. In the Later Stages of Dementia

In severe dementia (from FAST stage 7), communication difficulties and resistance to care and feeding may become more prominent than BPSD, with increased frequency of infections, complications of immobility and malnutrition.

Physicians may have to decide on feeding tube insertion, hospitalisation and intravenous

medications – interventions that may cause discomfort to the patient without bringing any meaningful benefit.

**If an ACP has not been established, discuss goals and extent of care with the patient's close family members who have insight into the patient's likely care preferences.**

### Stopping non-essential medications

**Stop cholinesterase inhibitors / memantine** by tapering over two to three weeks when there is no meaningful interaction between the patient and others/family. If decline is observed temporally to medication discontinuation, the drug can be gradually re-introduced.

Also consider stopping other medications that are no longer beneficial when life expectancy is very limited (e.g., vitamins, statins, antithrombotics, bisphosphonates).

### Managing pain

**Assess for pain with a rating scale** for patients who are unable to communicate, such as the Pain Assessment in Advanced Dementia Scale<sup>o</sup>.

The scale is also useful for caregivers to determine if patients are experiencing discomfort – it teaches that the patient can express discomfort through facial expressions / body language such as laboured breathing, groaning or crying, looking tense, restlessness, clenching fists, drawing up knees, or pulling / pushing / striking out.

### Treat the underlying cause of pain where possible.

Consider regular analgesia such as regular paracetamol if pain is frequent, when the underlying aetiology is unknown or irreversible.

### Managing dysphagia and food refusal

**Improve food intake by ensuring adequate fluids, enhancing taste and liberalising diet based on the patient's preferences.** After addressing reversible dental and medical causes, food refusal may characterise the end stage of dementia. The poor appetite and associated weight loss may distress the family.

Considerations for providing nutrition with a feeding tube would include the following:

- Aspiration pneumonia is the most common cause of death in dementia.
- Inserting a feeding tube is a medical intervention.
- Feeding tubes do not eliminate the risk of aspiration (e.g., from saliva) and are not associated with improvement in mortality.

- Patients may reject feeding tubes and the resultant agitation may require physical and chemical restraints.
- Compared to tube feeding, careful oral feeding offers similar outcomes in aspiration pneumonia, functional status, comfort and mortality rate.
- For patients at high aspiration risk but who do not refuse oral feeding, tasting food may be one of the patient's few remaining pleasures. Oral feeding may also be a time for socialisation with the family.
- When oral intake is poor, families of patients without a feeding tube may second guess their decision. Be available to offer continued support.
- If a feeding tube is inserted, establish clear goals (e.g., to continue treating infections with oral antibiotics and avoid hospitalisations, while the patient is still alert) and regularly re-evaluate if goals are being met.

### End-of-life care

**If the patient's prognosis is less than one year, consider a referral to hospice home care.<sup>p</sup>**

The referral criteria include:

- Severe stage of dementia with increasing word-finding difficulty (FAST stage 7) **and** one of the following:
  - Pneumonia in the past one year
  - Serum albumin < 35 g/l
  - Feeding tube
  - Suboptimally controlled symptoms (e.g., pain)

The hospice home care team would visit patients in their homes and provide caregivers with after-hours support in the event of emergencies. Inpatient hospice may be considered if patients cannot be adequately managed at home.

In the event of demise, family members can be referred to bereavement support services if necessary.<sup>q</sup>



## USEFUL LINKS

- a. **Let's talk about Vascular Dementia.** HealthHub. <https://www.healthhub.sg/programmes/74/understanding-dementia>
- b. **Functional Assessment Staging Test (FAST).** Medical Care Corporation. <https://www.mccare.com/pdf/fast.pdf>
- c. **Dementia Resources for Caregivers.** Agency for Integrated Care. <https://www.aic.sg/body-mind/dementia>
- d. **Dementia Resources to Support Caregivers.** Agency for Integrated Care. <https://www.aic.sg/resources/Documents/Brochures/Mental%20Health/Dementia%20Support%20and%20Resources%20listing.pdf>
- e. **Your Guide to Building a Dementia-Friendly Singapore.** Forget Us Not. [https://forgetusnot.sg/assets/images/resources/downloads/LIEN\\_Dementia\\_Handbook.pdf](https://forgetusnot.sg/assets/images/resources/downloads/LIEN_Dementia_Handbook.pdf)
- f. **Dementia Singapore.** <https://dementia.org.sg/>
- g. **Resources.** Dementia-Friendly Singapore. <https://www.dementiafriendly.sg/Resource>
- h. **Learning About Dementia Care from Others.** Agency for Integrated Care. <https://www.aic.sg/body-mind/dementia-brochures>
- i. **Managing Dementia and Behaviours of Concern.** Agency for Integrated Care. <https://www.aic.sg/body-mind/manage-dementia-behaviour>
- j. **Caregiver's Guide: Supporting Persons with Dementia who Wander.** Agency for Integrated Care. [https://www.aic.sg/resources/Documents/Brochures/Mental%20Health/Caregivers%20Guide%20for%20Persons%20with%20Dementia%20Who%20Wander%20\(F\).pdf](https://www.aic.sg/resources/Documents/Brochures/Mental%20Health/Caregivers%20Guide%20for%20Persons%20with%20Dementia%20Who%20Wander%20(F).pdf)
- k. **Rawtaer I (July 2021). How to Manage Behavioural and Psychological Symptoms of Dementia.** Defining Med. <https://www.singhealth.com.sg/news/defining-med/How-to-Manage-Behavioural-and-Psychological-Symptoms-of-Dementia>
- l. **Support from Caregivers of Persons Living with Dementia.** Agency for Integrated Care. <https://www.aic.sg/body-mind/dementia-caregiver-support>
- m. **Go Respite Pilot.** Agency for Integrated Care. [www.aic.sg/caregiving/go-respice-pilot](http://www.aic.sg/caregiving/go-respice-pilot)
- n. **Office of the Public Guardian.** Ministry of Social and Family Development. <https://www.msf.gov.sg/opg>
- o. **Pain Assessment in Advanced Dementia Scale (PAINAD).** Dementia Pathways. [http://dementiapathways.ie/\\_filecache/04a/ddd/98-painad.pdf](http://dementiapathways.ie/_filecache/04a/ddd/98-painad.pdf)
- p. **Palliative Care Services.** Singapore Hospice Council. <https://singaporehospice.org.sg/services/>
- q. **Community Bereavement Service Providers.** Singapore Hospice Council. <https://singaporehospice.org.sg/community-bereavement-service-providers>

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1. Baile WF, Buckman R, Lenzi R, Glober G, Beale EA, and Kudelka AP. SPIKES--A six-step protocol for delivering bad news: Application to the patient with cancer. *The Oncologist*. 2000; 5:302-311. Education in Palliative and End-of-Life Care (EPEC)-Neurology Curriculum. International Neuropalliative Care Society. <https://www.inpcs.org/i4a/pages/index.cfm?pageid=3324>
2. Education in Palliative and End-of-Life Care (EPEC)-Neurology Curriculum. International Neuropalliative Care Society. <https://www.inpcs.org/i4a/pages/index.cfm?pageid=3324>
3. Creutzfeldt CJ, Kluger BM, Holloway RG, eds. *Neuropalliative Care: A guide to improving the lives of patients and families affected by neurologic disease*. Cham, Switzerland: Springer; 2019.
4. deLima Thomas J, Sanchez-Reilly S, Bernacki R, O'Neill L, Morrison LJ, Kapo J, Periyakoil VS, Carey EC. Advance care planning in cognitively impaired older adults. *J Am Geriatr Soc*. 2018 Aug;66(8):1469-1474. doi: 10.1111/jgs.15471
5. Hugo J, Ganguli M. Dementia and cognitive impairment: Epidemiology, diagnosis, and treatment. *Clin Geriatr Med*. 2014 Aug;30(3):421-42. doi:10.1016/j.cger.2014.04.001

To view all references, please refer to the online version of *Defining Med* by scanning the QR code on the cover page.



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For referral to palliative care services, please contact the respective institutions or scan the QR code for more information:



**Singapore General Hospital**  
6326 6060

**Changi General Hospital**  
6788 3003

**Sengkang General Hospital**  
6930 6000

**KK Women's and Children's Hospital**  
6692 2984

**National Cancer Centre Singapore**  
6436 8288

**National Heart Centre Singapore**  
6704 2222

**National Neuroscience Institute**  
6330 6363

# Enhancing Community Care for Frail Elderly in the End of Life

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With the number of nursing home residents on the rise, it is crucial to ensure that the frail elderly are cared for comfortably, according to their wishes. Changi General Hospital's EAGLEcare programme, in partnership with nursing homes and general practitioners, has helped to meet these needs – by facilitating discussions on their end-of-life care preferences, and thus reducing unnecessary hospital admissions.

## SINGAPORE'S ELDERLY IN NURSING HOMES

Older people living in nursing homes (NHs) have a high level of comorbidity and frailty, as well as complex health needs. Admissions to hospital are associated with a number of drawbacks including dissatisfaction with care, rapid functional decline, low survival rates and suboptimal end-of-life (EOL) care, and should be avoided if not clinically indicated.

Yet, hospitalisation for NH residents at the end of life is still prevalent in Singapore. In 2019, NH residents accounted for 1,751 cases presented at Changi General Hospital's (CGH) Accident & Emergency Department, of which 80% were admitted to inpatient wards.<sup>4</sup>

Given the rising NH population (77 NHs and 16,300 NH beds as of 2020)<sup>5</sup>, it is important for NH residents at the end of life to receive adequate and appropriate care.

## WHAT IS EAGLECARE?

The **Enhancing Advance Care Planning, Geriatric Care and End-of-Life Care in the Eastern Region (EAGLEcare)** programme was set up in 2015 by CGH to equip and support NHs in advance care planning (ACP), geriatric and EOL care. It aims to ensure NH residents at the end of life are cared for comfortably in their NH according to their preferences, thereby reducing unnecessary hospital utilisation.



To date, EAGLEcare has partnered with three NHs in the East, namely Peacehaven Nursing Home, Moral Home for the Aged Sick and NTUC Health (Chai Chee) Nursing Home. EAGLEcare has also been actively reaching out to other NHs in the region to explore collaborations.

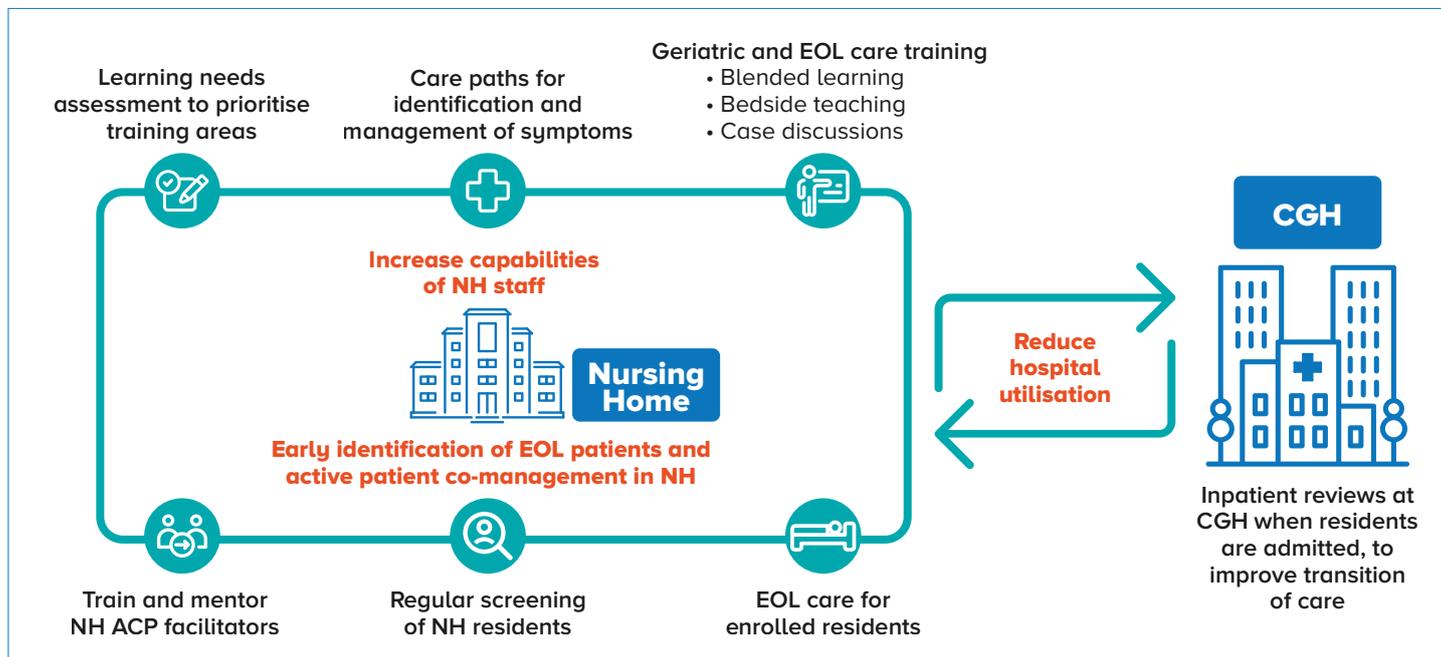


Figure 1 Framework for the EAGLEcare programme

**EAGLEcare objectives**

EAGLEcare’s goals include:

1. Upskilling of NH staff to provide ACP services
2. Developing professional capabilities of NH staff in geriatric and EOL care
3. Developing a model to deliver EOL care for suitable NH residents

**Training NH staff to better meet EOL needs**

As of March 2022, EAGLEcare has **trained 91 NH staff in ACP / preferred plan of care (PPC) facilitation, and conducted more than 696 ACP/PPC conversations** for residents among partnering NHs. There has also been an increasing proportion of ACP/PPCs completed by NH staff independently as their confidence and proficiency have increased.

EAGLEcare has also **conducted geriatric and EOL training courses** on topics such as safe feeding and swallowing, poor oral intake and dysphagia management, as well as EOL care (comprising topics in advanced diseases, symptom management, communication and terminal care) to 335 NH staff. These courses were a mixture of face-to-face and blended learning modules, and were converted to Zoom workshops in 2020/2021 during the COVID-19 pandemic.

**THE EAGLECARE ENROLMENT ELIGIBILITY AND PROCESS**

Partnering NH staff are empowered and supported by the EAGLEcare team to implement a system to proactively identify and enrol residents eligible for EOL care.

**Eligibility criteria**

**Residents from partnering NHs are enrolled in the EAGLEcare programme if they meet the following criteria:**

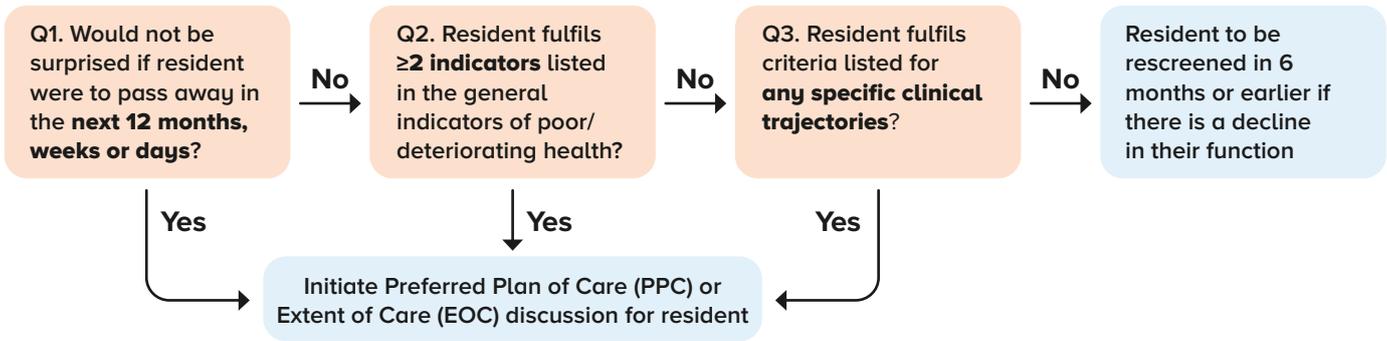
1. Are screened eligible based on the EAGLEcare Screening Assessment Tool,
2. Have PPC preferences for comfort measures or limited intervention, and
3. Consent to be enrolled in the programme

**EAGLEcare Screening Assessment Tool**

The EAGLEcare Screening Assessment Tool was adapted from the Gold Standards Framework (GSF)<sup>6</sup> and the Supportive and Palliative Care Indicators Tool (SPICT)<sup>7</sup>, and is detailed in the following pages.

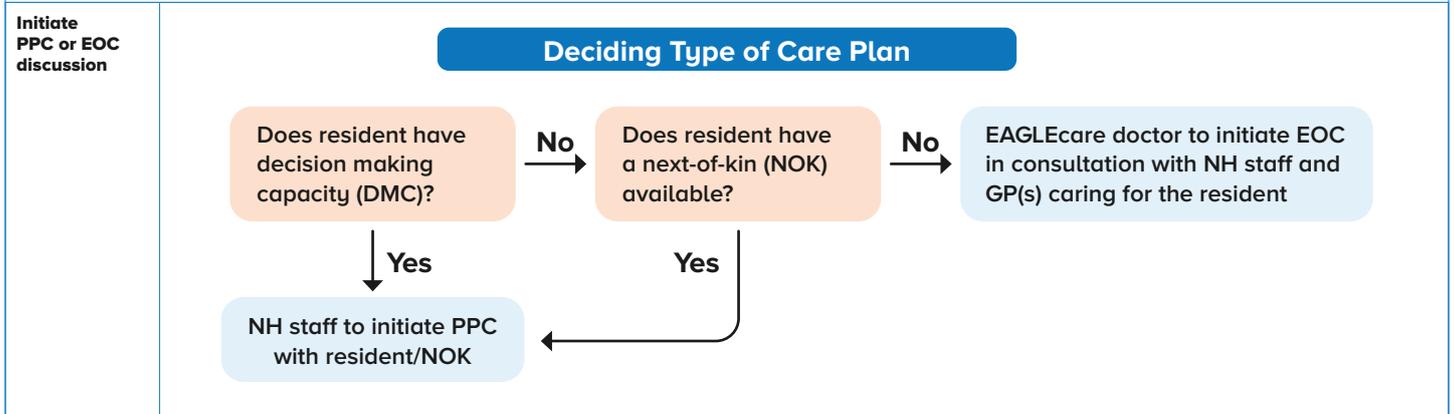
## EAGLEcare Screening Assessment Tool

### EAGLEcare Screening Assessment



<b>Q1: No surprise question</b>	Would not be surprised if resident were to pass away in the next 12 months, weeks or days? – Yes/No <i>If the answer is 'No' (i.e., you would be surprised), proceed to Q2</i>																							
<b>Q2: General indicators of poor or deteriorating health</b>	Does resident fulfil $\geq 2$ of the following indicators: a. Unplanned hospital admissions b. Performance status is poor or deteriorating, with limited reversibility (e.g., resident stays in bed or in a chair for more than half a day) c. Increasing dependency in most activities of daily living (ADLs) d. Significant weight loss over the last few months (e.g., 5% in 3 months) or remains underweight e. Persistent symptoms despite optimal treatment of underlying condition(s) f. Increasing caregiver burden g. Resident (or family) asks for palliative care; chooses to reduce, stop or not have treatment; or wishes to focus on quality of life <i>If the resident does not fulfil <math>\geq 2</math> indicators, proceed to Q3</i>																							
<b>Q3: Specific clinical indicators</b>	<p>If Q1 and Q2 are negative responses, the table below is used to determine eligibility according to three clinical trajectories:          1. Frailty / comorbidity / dementia      2. Organ failure      3. Cancer</p> <table border="1"> <thead> <tr> <th colspan="4">EOL ASSESSMENT: SPECIFIC CLINICAL INDICATORS RELATED TO THREE TRAJECTORIES</th> </tr> <tr> <th></th> <th>Frailty</th> <th>Stroke / Parkinsonism</th> <th>Dementia</th> </tr> </thead> <tbody> <tr> <td>Frailty, dementia, multi-morbidity (at least 2 indicators to be present)</td> <td> <input type="checkbox"/> Unable to dress, walk or eat without help  <input type="checkbox"/> Eating and drinking less; difficulty with swallowing  <input type="checkbox"/> Urinary and faecal incontinence  <input type="checkbox"/> Not able to communicate by speaking; little social interaction  <input type="checkbox"/> Frequent falls and fragility fractures (e.g., femur, wrist, spine)  <input type="checkbox"/> Recurrent febrile episodes or infections; aspiration pneumonia                 </td> <td> <input type="checkbox"/> Progressive deterioration in physical and/or cognitive function despite optimal therapy  <input type="checkbox"/> Speech problems with increasing difficulty communicating and/or progressive difficulty with swallowing  <input type="checkbox"/> Recurrent aspiration pneumonia; breathlessness or respiratory failure  <input type="checkbox"/> Persistent paralysis after stroke with significant loss of function and ongoing disability                 </td> <td> <input type="checkbox"/> Unable to: Walk (FAST 7C), sit up (FAST 7D), smile (FAST 7E), OR hold up head (FAST 7F)  <input type="checkbox"/> No consistently meaningful conversation (FAST 7A and 7B)  <input type="checkbox"/> Urinary and faecal incontinence (FAST 6D and 6E)  <input type="checkbox"/> Unable to do ADLs (FAST 6A to 6C)  <b>AND</b>  <input type="checkbox"/> Weight loss, reduced oral intake, pressure sore(s) (stage 3 or 4) OR aspiration pneumonia, recurrent fevers, urinary tract infection                 </td> </tr> <tr> <td rowspan="2">Organ failure (at least 1 indicator to be present)</td> <td> <b>Heart/Vascular Disease</b>  <input type="checkbox"/> Heart failure or extensive, untreatable coronary artery disease; with breathlessness or chest pain at rest or on minimal effort  <input type="checkbox"/> Severe, inoperable peripheral vascular disease                 </td> <td colspan="2"> <b>Respiratory Disease</b>  <input type="checkbox"/> Severe, chronic lung disease; with breathlessness at rest or on minimal effort between exacerbations  <input type="checkbox"/> Persistent hypoxia needing long-term oxygen therapy  <input type="checkbox"/> Has needed ventilation for respiratory failure or ventilation is contraindicated                 </td> </tr> <tr> <td> <b>Kidney Disease</b>                      Stage 4 or 5 chronic kidney disease (eGFR &lt; 30 mL/min) with deteriorating health  <input type="checkbox"/> Kidney failure complicating other life-limiting conditions or treatments  <input type="checkbox"/> Stopping or not starting dialysis                 </td> <td colspan="2"> <b>Liver Disease</b>  <input type="checkbox"/> Cirrhosis with one or more complications in the past year:                     <ul style="list-style-type: none"> <li>• Diuretic resistant ascites</li> <li>• Hepatic encephalopathy</li> <li>• Hepatorenal syndrome</li> <li>• Bacterial peritonitis</li> <li>• Recurrent variceal bleeds</li> </ul> <input type="checkbox"/> Liver transplant is not possible                 </td> </tr> <tr> <td rowspan="2">Cancer and others</td> <td colspan="2"> <b>Cancer</b>  <input type="checkbox"/> Functional ability deteriorating due to progressive cancer  <input type="checkbox"/> Too frail for cancer treatment or treatment is for symptom control                 </td> <td> <b>Other Conditions</b>  <input type="checkbox"/> Deteriorating and at risk of dying with other conditions or complications that are not reversible; any treatment available will have a poor outcome                 </td> </tr> </tbody> </table> <p><i>If the resident does not meet the criteria, the resident is rescreened in 6 months or earlier if there is a decline in function</i></p>	EOL ASSESSMENT: SPECIFIC CLINICAL INDICATORS RELATED TO THREE TRAJECTORIES					Frailty	Stroke / Parkinsonism	Dementia	Frailty, dementia, multi-morbidity (at least 2 indicators to be present)	<input type="checkbox"/> Unable to dress, walk or eat without help <input type="checkbox"/> Eating and drinking less; difficulty with swallowing <input type="checkbox"/> Urinary and faecal incontinence <input type="checkbox"/> Not able to communicate by speaking; little social interaction <input type="checkbox"/> Frequent falls and fragility fractures (e.g., femur, wrist, spine) <input type="checkbox"/> Recurrent febrile episodes or infections; aspiration pneumonia	<input type="checkbox"/> Progressive deterioration in physical and/or cognitive function despite optimal therapy <input type="checkbox"/> Speech problems with increasing difficulty communicating and/or progressive difficulty with swallowing <input type="checkbox"/> Recurrent aspiration pneumonia; 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**EAGLEcare Screening Assessment Tool** (continued)



**ADVANCE CARE PLANNING IN EAGLECARE**

ACP is a process of planning for one’s current and future healthcare<sup>8</sup>, especially when one becomes too unwell to communicate or make treatment decisions.

It is a voluntary and non-legally binding discussion about life-sustaining treatments, how one would like

to be cared for and where one would like to spend their last days when seriously ill. Patients can then receive healthcare that is tailored to their values and preferences.

**Decision making through ACP discussions**

In the EAGLEcare programme, two types of ACPs are discussed<sup>9</sup> – **general ACP** and **PPC**.

Type of ACP	General ACP	PPC
<b>Target audience</b>	<ul style="list-style-type: none"> <li>Primarily for adults with DMC</li> </ul>	<ul style="list-style-type: none"> <li>Primarily for adults with DMC</li> <li>Family members / other informants who have demonstrated acts of care for patients lacking DMC</li> </ul>
<b>Decisions to be made</b>	<ul style="list-style-type: none"> <li>Appointing Nominated Healthcare Spokesperson(s)</li> <li>Documenting what is important to live well and make life meaningful</li> <li>Discussing the goals of care if one becomes severely mentally impaired with a low chance of recovery</li> </ul>	<ul style="list-style-type: none"> <li>Care options on cardiopulmonary resuscitation (to go ahead or let nature take its course)</li> <li>Goals of care for medical intervention when one suffers a potentially life-threatening crisis, or with regard to questions such as tube feeding</li> <li>Preference for place of care (e.g., hospital, hospice or nursing home)</li> <li>Preference for place of death (e.g., hospital, hospice, nursing home or own home)</li> <li>Appointment of Nominated Healthcare Spokesperson(s) if necessary</li> </ul>

**After ACP discussions:  
EAGLEcare enrolment and care**

After these ACP conversations are carried out, if residents (and/or their NOK) have expressed a PPC preference for comfort care or a trial of limited interventions (i.e., not for cardiopulmonary resuscitation or intensive care), and consent to being cared for in the NH by the EAGLEcare team, they are enrolled in the EAGLEcare programme.

Here, they are looked after by their regular NH general practitioners (GPs) and a core EAGLEcare team during the day, as well as an on-call palliative team from St. Andrew's Community Hospital (the Violet Programme) after hours.

**THE IMPACT OF EAGLECARE**

As of March 2022, the NHs, supported by the EAGLEcare team, have screened 1,095 residents. Of this group, 508 residents were identified as eligible for EOL care and 426 unique residents were enrolled (after consent was obtained from either the resident or their NOK).

EAGLEcare, in collaboration with three partner NHs and their GPs, has **helped reduce the number of hospital admissions among partner NHs from 722 in 2018 to 410 in 2020.**

EAGLEcare has also **honoured at least 98% of enrolled decedents' wishes** in terms of treatment preferences, and at least 93% in terms of preferred place of death in 2020 and 2021.

“ *EAGLEcare provides a responsive and wholesome approach to end-of-life care for nursing home patients. The quality of care for such patients has certainly improved significantly with such close collaboration. It also strongly reassures the nursing home medical staff that they are well supported by the tertiary hospital in all medical situations.* ”

**Comment from a partnering  
NH GP of EAGLEcare**

**COLLABORATION WITH GPs**

EAGLEcare has developed a close working relationship with the GPs from their partnering NHs, where both parties work closely in consultation with each other to jointly care for residents enrolled in the EAGLEcare programme.

Based on our perspective from working with GPs looking after the frail elderly in NHs, we hope that it will help all GPs identify residents who may be approaching the end of their lives, and to explore their wishes surrounding that time, so as to complete their life journeys in dignity and among familiar caregivers according to their preferences.



## CASE STUDY

### Background

Mdm T was an 83-year-old Chinese lady from one of the NHs in the East. She had a background of hypertension, hyperlipidaemia and stroke, causing her to be bedbound, requiring a nasogastric tube for sustenance and unable to communicate.

### Meeting the EAGLEcare team

#### *Understanding the patient's conditions*

When the EAGLEcare team first met her, she had already had approximately 15 hospital admissions over the past year and a half, averaging about one per month, mostly due to recurrent catheter-associated urinary tract infections (CAUTI), likely secondary to a large staghorn calculus she had.

#### *Conducting the PPC discussion*

After the EAGLEcare team determined that she was a possible candidate for EOL care based on the aforementioned criteria, the team approached her family to conduct a PPC discussion.

### *Enrolling in EAGLEcare*

The family was amazed to hear that there was such an option as keeping Mdm T in the nursing home, rather than sending her to the hospital each time for intravenous antibiotics.

They felt that she was suffering while going in and out of the hospital. As she had already lived a fulfilled life, they were keen to keep her comfortable among familiar caregivers in the nursing home at the end of her life.

### *Leaving with dignity*

Mdm T eventually passed away a few months later in the nursing home, cared for by her NH GP who had known her for years, with the support of the EAGLEcare team. Her family was grateful that they could keep her suffering to a minimum as she reached the end of her life journey.

**GPs who would like more information about the EAGLEcare programme, please contact Ms Yee Kai Ying, Executive, ILTC Integration at [yeekai.ying@singhealth.com.sg](mailto:yeekai.ying@singhealth.com.sg).**



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Dr Wong Ka-Loon is a Senior Resident Physician at Changi General Hospital. She has an interest in the end-of-life care of frail nursing home residents and has recently completed a postgraduate course in palliative medicine.



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Dr Christopher Lien is the Director of Community Geriatrics at Changi General Hospital and the Clinical Lead of the EAGLEcare programme. He has an interest in the development of transitional, intermediate and long-term care services for the elderly.



For referral to palliative care services, please contact the respective institutions or scan the QR code for more information:



**Singapore General Hospital**  
6326 6060

**Changi General Hospital**  
6788 3003

**Sengkang General Hospital**  
6930 6000

**KK Women’s and Children’s Hospital**  
6692 2984

**National Cancer Centre Singapore**  
6436 8288

**National Heart Centre Singapore**  
6704 2222

**National Neuroscience Institute**  
6330 6363

# Strengthening Grief Literacy in the Community: A Resource for Primary Care Physicians

**Mr Andy Sim Gim Hong**

Co-Director, Education,  
SingHealth Duke-NUS Supportive & Palliative Care Centre;  
Principal Medical Social Worker (Educator), Medical Social Services,  
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With the trust and understanding built up between general practitioners (GPs) and their patients over years of care, GPs are well-positioned to provide timely bereavement care and support during the end-of-life journey. Find out more about a newly developed resource that aims to support healthcare and community care professionals including GPs in this area – highlighting common care needs and signposting the resources available to address them.

## A BROADER UNDERSTANDING OF BEREAVEMENT CARE

Bereavement care has often been perceived as receiving psychotherapeutic interventions such as bereavement counselling or therapy *after* the death of a loved one. This is not surprising as bereavement is defined as ‘the objective situation of having lost someone significant through death’.<sup>1</sup>

However, the National Institute for Health and Care Excellence Guidance on Cancer Services (2004) posited that **bereavement care may begin before a death, and is not just about the actual dying phase or time around and after death.**

## A wide range of bereavement needs

The guidelines also added that bereavement can give rise to a wide range of needs such as practical, financial, social, emotional and spiritual.

Therefore, beyond the need for psychotherapeutic interventions, bereaved persons may also present with:<sup>2</sup>

- Needs for information about loss and grief
- Needs to pursue particular cultural practices
- Needs for additional support to deal with the emotional and psychological impact of loss by death
- In a small number of circumstances, specific needs for mental health service intervention to cope with a mental health problem related to loss by death

**A broader understanding of bereavement care is therefore important for community care providers such as GPs to offer timely and appropriate forms of psycho-emotional as well as practical support to patients and their loved ones.**

## THE ROLE OF GPs IN BEREAVEMENT CARE

Primary care (GP clinics and polyclinics) is the foundation of the healthcare system in Singapore.<sup>3</sup> 80 per cent of primary care in Singapore is provided by private medical clinics. In addition, 55 per cent of chronically ill patients are managed by private GPs, with polyclinics tending to the remaining 45 per cent.<sup>4</sup>

### What GPs can do

While an informal search of the internet did not reveal any local papers describing the GP's provision of bereavement care in Singapore, international literature from the United States, United Kingdom and Australia has posited that **GPs are well-positioned to provide bereavement care and support to their patients.**<sup>5-7</sup>

It has been proposed that the role of the GP can be twofold:<sup>8-10</sup>

- Supporting bereaved persons, and
- Referring them to additional support services from mental health professionals when necessary

In the United Kingdom, the average practice has 20 patient deaths per full-time GP each year, with a proportion of them being newly bereaved individuals.<sup>5</sup> Studies have also documented increased GP reviews by patients following bereavement due to increased morbidity during this time.<sup>11-13</sup>

### Supporting GPs in providing care

Although GPs and primary care providers may be suited to provide bereavement support in the community, few are adequately trained,<sup>14-16</sup> and many are uncertain how to respond after a death beyond being approachable, accessible and understanding<sup>17-18</sup>.

While international literature has continued to focus on the provision of bereavement care after the death of an individual, **it is important to develop resources that can offer relevant and useful information to care providers such as GPs on upstream bereavement care needs and services.**

*“As the first line of care in the community, primary care professionals are often the first point of contact with patients. They provide holistic and personalised care for patients of different age groups.”*

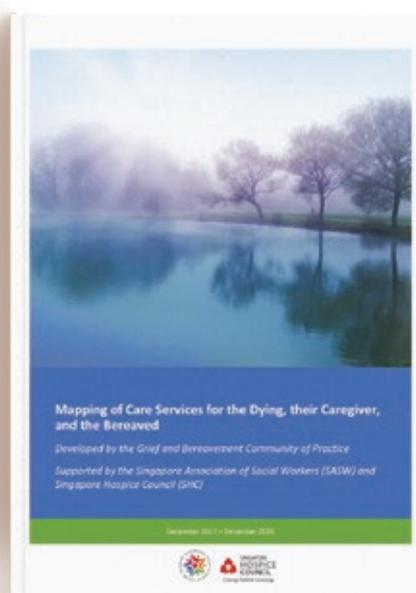
– Ministry of Health (MOH), 2021<sup>3</sup>

## A LOCAL GRIEF AND BEREAVEMENT RESOURCE

In order to support healthcare and community care professionals in Singapore in meeting the vast range of bereavement needs, between 2017 and 2020, the Grief and Bereavement Community of Practice (GBCoP) produced an inaugural resource entitled **'Mapping of Care Services for the Dying, their Caregiver, and the Bereaved'**.

### Resource objectives

This service map was created as an education and service planning resource for local health and community care providers to navigate the end-of-life and bereavement care journey of persons suffering and dying from serious illnesses.



It can also serve as an information directory for the general public who may be interested to learn about services relevant to end-of-life, grief and bereavement care.

It should be noted that the service map is not meant to dictate the needs of the dying, their caregivers and bereaved persons, or to prescribe care interventions by service providers. Instead, it **highlights common care needs of grieving or bereaved individuals and signposts available community resources to meet those needs as they arise.**

A **person-centric approach** was adopted in its development, where the voices of service users shaped the five major person-centred themes in the service map (**Annex A**).

### Resource format and structure

In this service map, information is organised and presented over three demarcated time periods:

- 12 months pre-death
- Days before and after death
- 12 months bereavement period post-death

Perspectives from both care providers and service users were consolidated and organised into three key elements of bereavement care needs and services across the demarcated time periods (**Annex B**):

#### 1. Providers of care

Who are the ones involved in providing care?

#### 2. Aspects of care

What are the different aspects or types of care needs?

#### 3. Care tasks

What is the focus of assessment and intervention?

The resource further describes the mainstream care services within the local landscape, as well as interventions to address a diverse range of practical, financial, social, emotional and spiritual needs of the dying, their caregivers and the bereaved.

**Annex C** features the elements of care at the 12-month prognosis period. Brief descriptions of selected care providers, care services as well as concepts listed in the service map were added to offer additional useful information to readers. The numbers annotated beside these selected items in **Annex C** allow readers to locate the corresponding descriptions in the resource. A sample of the descriptions is shown in **Annex D**.



**To download an e-copy of the resource, please visit the websites below:**

- **Singapore Association of Social Workers**  
[www.sasw.org.sg/sasw-resources](http://www.sasw.org.sg/sasw-resources)
- **Singapore Hospice Council**  
<https://library.singaporehospice.org.sg/?docs=mapping-of-care-services-for-the-dying-their-caregiver-and-the-bereaved-1st-edition-jan-2022>

### About the Grief and Bereavement Community of Practice

The GBCoP was formed in December 2017 by a group of like-minded social workers from the healthcare, intermediate and long-term care as well as community care settings. It was formed under the auspices of the Singapore Association of Social Workers and Singapore Hospice Council, and funded by the MOH.

## CONCLUSION

**While GPs have limited time during each consultation session, the strength of their professional relationships with and understanding of their patients cannot be understated.**

Patients are familiar with and comfortable speaking to their GPs, and may be more willing to disclose stressors, losses and illness within the family, as well as existing coping strategies or the lack thereof.

They may also be more receptive to the advice and recommendations offered by their GPs such as seeking specialist and/or professional services when

needed. Furthermore, GPs may be better positioned to collaborate with other community partners to offer timely support and follow-up for patients, considering their proximity in the community.

It is the hope of the GBCoP that the service map can be a useful resource to both health and community care providers, to signpost the range of instrumental and practical support services that can be made available to their patients, clients and caregivers across the illness trajectory. We also hope that it can function as a springboard to generate interest and future opportunities to build local death and grief literacy.

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*To view all references, please view the online version of Defining Med by scanning the QR code on the cover page.*





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Mr Andy Sim is part of Singapore General Hospital's Internal Medicine Supportive and Palliative Care Service and the Isolation Intensive Care Unit supportive care team. He holds a Master of Social Work degree from New York University (NYU) and is a Leadership Fellow of the Zelda Foster Studies Program in Palliative and End-of-Life Care, NYU. He is also a Fellow in Thanatology of the Association for Death Education and Counselling.

Mr Sim was a core group member of the Grief and Bereavement Community of Practice and co-edited the 'Mapping of Care Services for the Dying, their Caregiver, and the Bereaved' resource.



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## Annex A

### Person-centred care approach used to capture the voice of service users

#### PERSON-CENTRED CARE

(What matters to patients, caregivers and the bereaved)

##### Familiarity & Continuity of Care

- Care to be continuous (by the same team)
- Team familiar with my condition
- Single point of contact (I know who to call)

##### Improved Communication & Education

- Have a voice for myself
- Provide timely and bite-sized information
- Provide truthful and consistent messages
- Given advance notice
- Do not assume I know
- Use appropriate language
- Provide guidance
- Given options to choose from

##### Seamless Care Transition

- Do not need to repeat information
- Timeliness of services and transmission of information to the next care provider
- Need help to manoeuvre complex systems
- Need help to gain access to services
- Early referral
- Coordinated care

##### Non-Abandonment

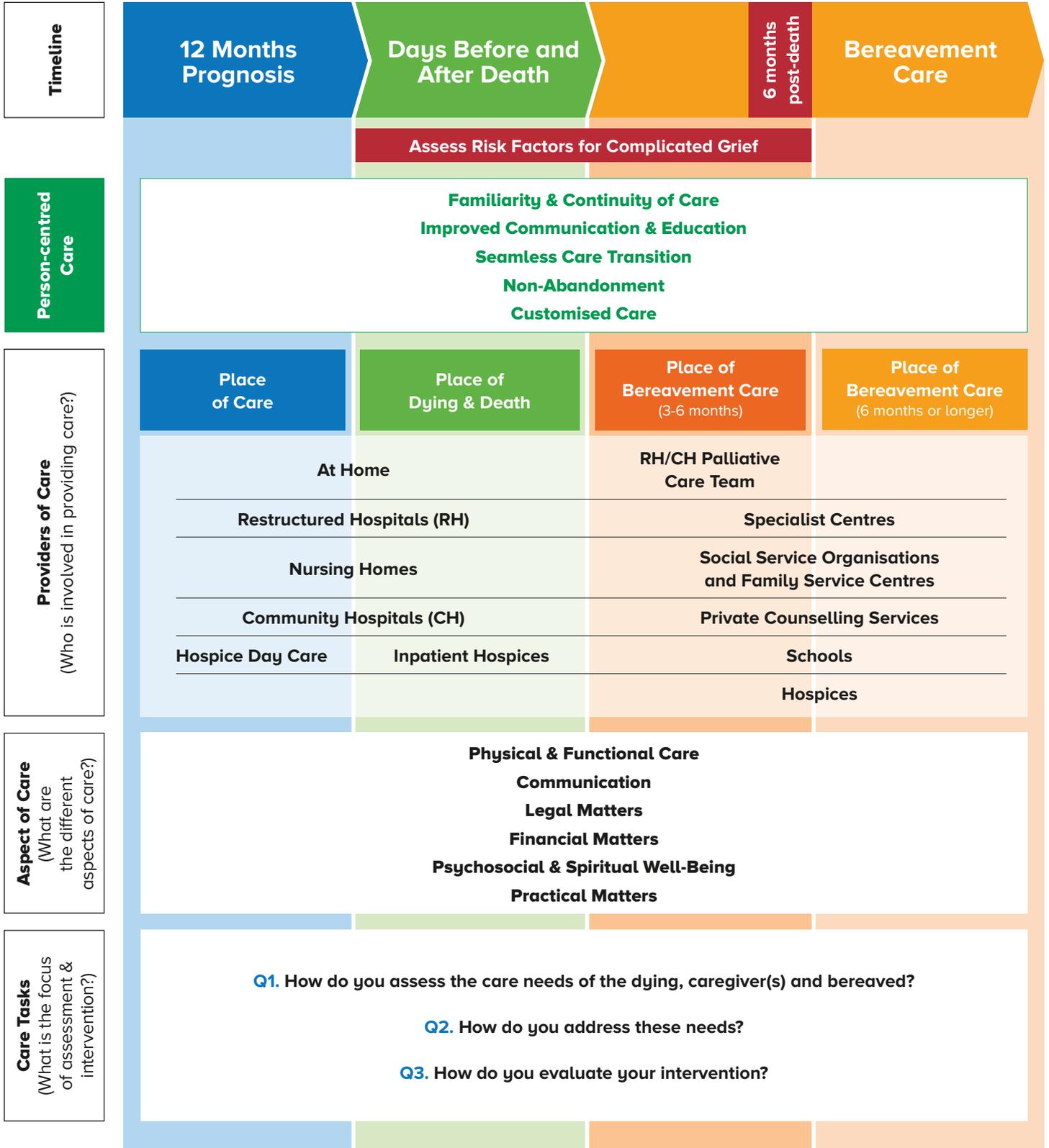
- Be treated as a person
- Live with dignity
- Support for caregivers
- Need someone to listen
- Be allowed to reminisce about the deceased
- Care for foreigners
- Wish to be remembered
- Care for single persons

##### Customised Care

- I decide when I need your service
- Recognise that my needs are different
- Do not want to feel rushed
- Care and services should not be limited by funding

## Annex B

Overview of the map highlighting the three key elements: providers of care, aspects of care, and care tasks



To view **Annexes C and D**, please refer to the online version of Defining Med by scanning the QR code on the cover page.

# Supporting Patients with Life-Limiting Illness from Hospital to Community

## SingHealth Duke-NUS Supportive & Palliative Care Centre

### WHAT IS SUPPORTIVE AND PALLIATIVE CARE?

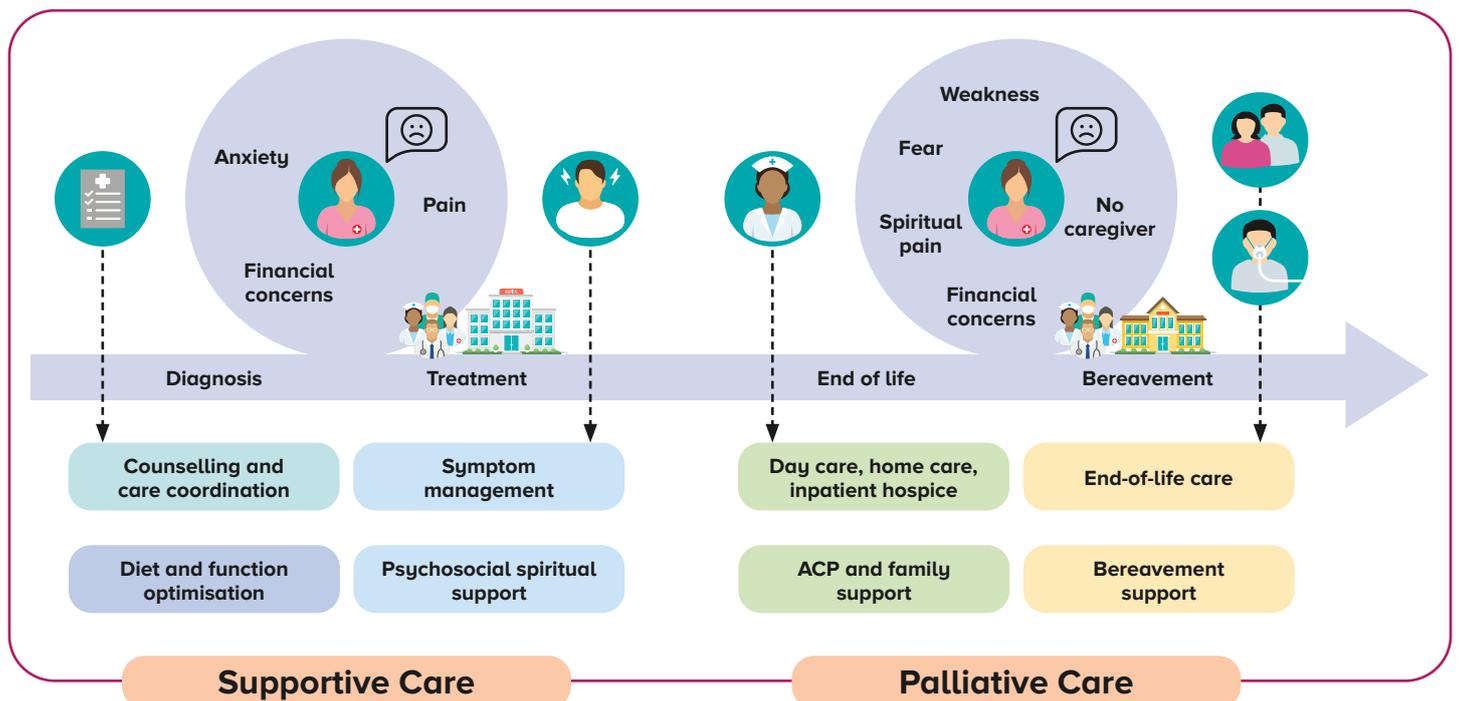
With our ageing population and improved survival brought about by medical advancements, the number of people living with serious life-threatening illnesses is ever increasing. To help them maintain their quality of life while managing illness- or treatment-induced symptoms, it is important to ensure that supportive and palliative care is available in different phases of the serious illness trajectory.

**Supportive care** focuses on **providing patients and families with the appropriate support** to allay concerns relating to illness and make lifestyle changes to improve their quality of life while living with the illness.

**Palliative care** focuses on **optimising quality of life** through relieving symptoms and addressing psychosocial issues, preparing and supporting family and caregivers for the end of life, advance care planning (ACP) as well as bereavement support.

This can be introduced as early as the point of diagnosis of a serious life-limiting illness, regardless of the stage of illness and treatment status.

### Provision of supportive and palliative care in different phases of the illness trajectory



Currently, less than half of the seriously ill patient population in Singapore is introduced to specialist palliative care services and often at very late in their illness trajectory, for symptom management prior to death.

Some serious illnesses include:

- End-stage lung, heart, renal and neurodegenerative diseases
- Advanced dementia and frailty
- Cancer

### **A joint effort of shared care**

While there is a need to increase access to supportive and palliative care, it is important to recognise the collective effort required to provide such care across the different care settings.

In acute hospitals, generalist supportive and palliative care can be provided by primary teams as part of their specialty care with sufficient training and guidance, before referring patients to palliative care specialists for complex care needs.

**Generalist supportive and palliative care can also be provided in the primary care setting, to ensure patients with serious illnesses continue to live well in the community.**

## THE SINGHEALTH DUKE-NUS SUPPORTIVE & PALLIATIVE CARE CENTRE

Established in April 2020, the **SingHealth Duke-NUS Supportive & Palliative Care Centre (SDSPCC)** brings together healthcare professionals of different expertise, dedicated to improving the quality of and access to supportive and palliative care for patients and their caregivers. It also fosters collaboration with community partners to achieve coordinated care and the best patient outcomes.

**There are currently ten supportive and palliative care services across SingHealth institutions:**

- Singapore General Hospital
- Changi General Hospital
- Sengkang General Hospital
- KK Women's and Children's Hospital (Paediatric and Gynae-Oncology)
- National Cancer Centre Singapore
- National Heart Centre Singapore
- National Neuroscience Institute
- Inpatient Hospice Palliative Care Services (IHPCS) at Outram Community Hospital and Sengkang Community Hospital

## CLINICAL SERVICES

### **Inter-professional clinical care**

Working in inter-professional clinical care teams consisting of doctors, nurses, medical social workers and other allied health professionals, SDSPCC provides different aspects of specialist palliative care in inpatient, outpatient and community settings.

### **Inter-department collaborations**

Inter-department collaborations have been established by respective palliative care services to help clinicians from different specialties identify eligible patients earlier in their illness trajectory. Advice is also given to help primary teams provide generalist

supportive and palliative care in their practice, prior to referral to palliative care specialists for patients with more complex palliative care needs.

### **Harmonisation of care**

Dedicated to improving the quality of palliative care, SDSPCC is currently leading the harmonisation of the clinical assessment tools under the Palliative Care Outcomes Collaboration within SingHealth.

We aim to standardise palliative care clinical service quality indicators for cluster, national and international benchmarking.

## COMMUNITY PARTNERSHIPS

As the supportive and palliative care needs of patients and caregivers vary in intensity over time, it is important that patients are rightly sited in different care settings based on their needs. The level of care provision increases along primary, acute, intermediate and long-term care settings.

Frequent visits to hospitals and the transition to step-down care are also pain points for patients with serious illnesses and their caregivers. SDSPCC is working to establish collaborations with community partners, including hospices and community hospitals, to facilitate smooth and seamless care transitions while ensuring consistent quality of care across different care settings.

## EDUCATION

### Training programmes

Beyond central planning, SDSPCC works closely with the Lien Centre for Palliative Care (LCPC) and Singapore Hospice Council (SHC) to develop generalist supportive and palliative care training

programmes for healthcare providers, students, community providers and the public, as well as to develop caregiver resources. For more information on generalist supportive and palliative care courses for general practitioners (GPs), please refer to [Table 1](#).

Course	Course description
<b>Graduate Diploma in Palliative Medicine</b>	10 months of part-time generalist training offered by the <b>Division of Graduate Medical Studies, NUS Yong Loo Lin School of Medicine</b> , aimed at training physicians who are interested in palliative care with the required competency and confidence to manage patients with palliative care needs in their respective care settings.  The course involves a mix of self-study, seminars with group discussions, group learning and six full-day attachments in various palliative care settings. Learners will also be assigned to a supervisor (specialist in palliative medicine).
<b>Post-Graduate Course in Palliative Medicine (LCPC-SHC)</b>	A 3-day course by <b>LCPC and SHC</b> on the principles and practice of palliative medicine for physicians across all settings. It aims to equip participants with generalist palliative care skills and knowledge for integration into their practice in the care for patients with life-limiting illnesses.
<b>Renal Supportive Care Course (Interdisciplinary)</b>	A 3-day online course conducted by <b>LCPC</b> to equip healthcare professionals caring for advanced chronic kidney disease patients with basic supportive care skills and knowledge to integrate into their practice.

**Table 1** Generalist supportive and palliative care courses for doctors in Singapore  
For links to these courses, please refer to the online version of *Defining Med* by scanning the QR code on the cover page.

### Competency frameworks

SDSPCC has also developed competency frameworks for nurses and medical social workers to enhance their skills and competencies within the palliative care fraternity, which will be shared with the Ministry of Health to aid development of national competency frameworks in palliative care.

Existing training programmes available are also mapped to performance expectations to facilitate the development of individuals within the competency framework.

### Public education

In public education, the National Cancer Centre Singapore (NCCS) and Singapore General Hospital (SGH) have provided supportive survivorship care education to SingHealth Polyclinics, SingHealth Community Nursing, as well as volunteers and community social workers in selected social service agencies (e.g., Breast Cancer Foundation, SPD, SG Enable and Singapore Cancer Society).

NCCS also conducts an annual Supportive and Survivorship Care Symposium targeting healthcare professionals, patients and caregivers to share the latest updates on cancer supportive care.

## RESEARCH

SDSPCC aims to train more healthcare professionals in research, encourage cross-institution collaboration, embrace innovation and experiment with new models of care.

There are plans to develop a SingHealth Palliative Care Registry – a database that can be used to address service development, quality improvement and research objectives. The registry will eventually be linked to data available in the hospices and home care services in the community, to track the

patient journey from hospital to community and monitor care outcomes.

The team is exploring the possibility of providing ‘precision medicine’ in the field of supportive and palliative care to achieve more efficient and effective models of care. This involves identifying individualised patient needs through data in electronic health records or patient-reported outcome measures, and matching them with the specific support required to meet those needs.

## Our Services

### Domains of care

- Prevention, assessment and management of pain and other symptoms (e.g., shortness of breath, loss of appetite, nausea or vomiting) related to serious illnesses and their treatments
- Patient and family/caregiver education
- Emotional, psychological and spiritual support
- Practical and social support
- Care and discharge planning
- End-of-life and bereavement care

### Some inter-department collaborations within SingHealth

- Internal Medicine
- Geriatric Medicine
- Intensive Care Unit
- Haematology
- Oncology
- Cardiology
- Neonatology / Paediatrics

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**Singapore General  
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**Changi General  
Hospital**  
6788 3003

**Sengkang General  
Hospital**  
6930 6000

**KK Women’s and  
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**National Cancer Centre  
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**National Heart Centre  
Singapore**  
6704 2222

**National Neuroscience  
Institute**  
6330 6363

GPs who would like to collaborate with the SingHealth Duke-NUS Supportive & Palliative Care Centre, please email to [sdspcc@singhealth.com.sg](mailto:sdspcc@singhealth.com.sg).

Website: [www.singhealth.com.sg/supportive-and-palliative-care-centre](http://www.singhealth.com.sg/supportive-and-palliative-care-centre)

## Our Executive Committee



1 2 3 4 5 6 7 8



9 10 11 12 13 14

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### Co-Director, Research

#### 14. Dr Ling Xu Yi

Principal Clinical Pharmacist,  
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## Additional Resources

### Singapore Hospice Council

1. Referral to Community Palliative Care Services in Singapore (SHC Common Referral Form)
2. 2021 Singapore Hospice Council FAQs on Palliative Care

### Lien Centre for Palliative Care

1. SG Pall eBook
2. Training and Courses

For links to these resources, please refer to the online version of *Defining Med* by scanning the QR code on the cover page.

# Home-Based Prehabilitation: Providing a Head Start in Cancer Recovery

## WHAT IS CANCER PREHABILITATION?

**Cancer prehabilitation is the process of care that we initiate before surgery or treatment for cancer.**

It consists of a series of assessments and interventions initiated before the cancer treatment (e.g., surgery, chemotherapy or radiotherapy) with the goals of improving the patient's health and fitness. It facilitates post-treatment recovery and helps the patient to tolerate adjuvant treatment better, reducing the chance of treatment disruption or termination.

## BENEFITS OF CANCER PREHABILITATION

There is an increasing proportion of surgical patients who are considered high risk due to advanced age and the presence of frailty or multiple comorbidities, making them more likely to have postoperative complications, protracted functional recovery and mortality.

The traditional approach is to rehabilitate these patients postoperatively after functional decline has set in.

However, in recent years, there has been a paradigm shift towards preparing patients pre-emptively prior to cancer treatment – which allows **improved postoperative functional recovery, reduced post-operative complications and shortened length of hospital stay.**

Recent studies and systematic reviews<sup>1</sup> have supported the evidence of these benefits, on top of improving psychological well-being and quality of life measures.

### Males

#### Ten most frequent incident cancers and cancer deaths in Singapore, 2015-2019

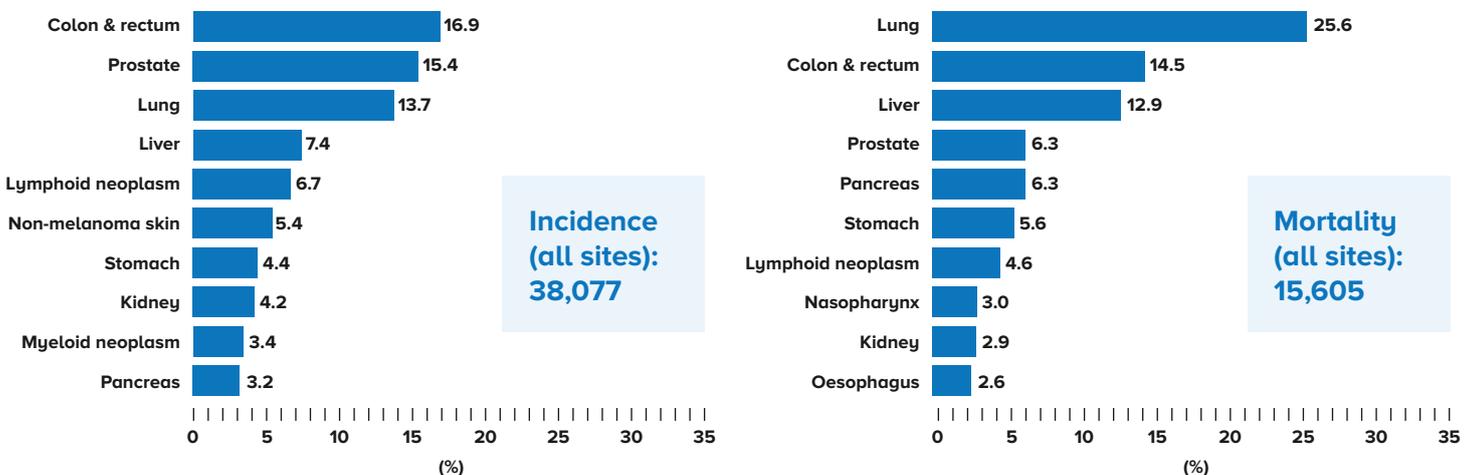


Figure 1a Prevalence of cancer among males in Singapore<sup>2</sup>

1. Perry R, Herbert G, Atkinson C, England C, Northstone K, Baos S, Brush T, Chong A, Ness A, Harris J, Haase A, Shah S, Pufulete M. Pre-admission interventions (prehabilitation) to improve outcome after major elective surgery: a systematic review and meta-analysis. *BMJ Open*. 2021 Sep 30;11(9):e050806.

2. Singapore Cancer Registry Annual Report 2019

## Females

### Ten most frequent incident cancers and cancer deaths in Singapore, 2015-2019

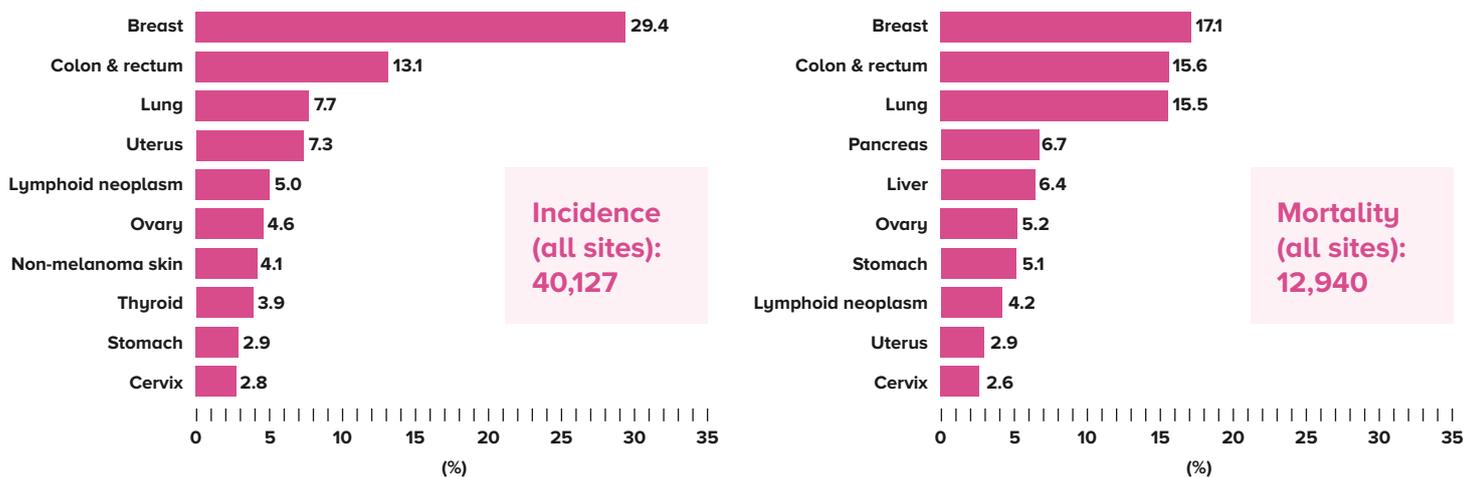


Figure 1b Prevalence of cancer among females in Singapore<sup>2</sup>

## HOME-BASED CANCER PREHABILITATION PROGRAMME AT CHANGI GENERAL HOSPITAL

### One-stop initiative with reduced hospital visits

Prehabilitation programmes typically target four major domains: medical optimisation, physical activity, nutrition and mental health; and usually require multiple visits to see various healthcare professionals based on their specialised domain (e.g., doctor, physiotherapist, dietitian and mental health professional).

At Changi General Hospital (CGH), our home-based cancer prehabilitation programme consists of a **one-stop screen-and-intervene initiative**<sup>3</sup>, which reduces the time spent in the hospital and allows patients to focus fully on the various domains of prehabilitation to reap its benefits prior to treatment.

### Personalised intervention plans

Patients are scheduled for visits to a prehabilitation coordinator and rehabilitation physician on the same

day, after their visit to the surgeon. They undergo a **holistic health assessment** comprising frailty, functional and mental wellness tests by the prehabilitation coordinator.

Based on the results and their medical conditions, the rehabilitation physician draws up a **personalised intervention plan**. The rehabilitation physician is a specialist who manages both medical and functional issues. He is certified in exercise prescription, and through focused cross-training by the dietitian and psychologist, is able to intervene in multiple domains.

This allows patients' existing chronic conditions to be optimised while they receive dietary and mental health advice, as well as a personalised exercise prescription.

3. San San, Tay & Kah Meng, Kwok. (2021). Setting Up A Cancer Prehabilitation Framework in Singapore. 10.48252/JCR5.



### Empowering patients to take charge of their health

To empower patients to take charge of their health at home, the exercise prescription is easily accessible via the **Cancer Prehabilitation Exercise Diary** on the **Health Buddy app**. Within the diary, there are exercise videos, reminders and an exercise log.

During the consultation, the prehabilitation coordinator will guide the patient and their caregivers on using the app to watch and follow their customised exercises, according to the rehabilitation physician's prescription.

### Follow-up and support – from hospital to home

Our prehabilitation team continues to care for and support the patient throughout the entire continuum of recovery, from hospital to home. The prehabilitation coordinator follows up with phone calls and a preoperative follow-up clinic visit.

The patient is reviewed inpatient after the surgery and three months post-surgery. The eventual aim is to transit them to community-based resources such as

Active SG or Active Health Lab to sustain the healthy lifestyle changes initiated prior to cancer treatment.

### THE CGH COLORECTAL CANCER PREHABILITATION PILOT STUDY

In a pilot study of some 60 colorectal cancer patients conducted from January 2020 to June 2021, the patients who have undergone prehabilitation showed statistically significant improvements in several domains. These include functional capacity as measured by the 6-minute walk test, mental health as measured by the Hospital Anxiety and Depression Scale and EQ-5D questionnaires.

**Compared to historical data, this group of patients went home 1.5 days earlier and the 30-day readmission and mortality rates were reduced.**

The prehabilitation programme has been expanded to include prostate, bladder, liver, biliary, pancreatic, oesophagus and gastric cancer patients planned for surgery at CGH.

## HOW GPs CAN REFER



To refer cancer patients who are awaiting surgery, chemotherapy or radiotherapy and would like to be enrolled in a prehabilitation programme, please contact the prehabilitation coordinator to find out the patients' suitability:

Tel: **6936 6452**

Email: **christopher\_de\_conceicao\_paul@cgh.com.sg**

## Our Care Team

### Clin Asst Prof Tay San San

Chief & Senior Consultant,  
Dept of Rehabilitation Medicine

### Clin Asst Prof Kwok Kah Meng

Consultant,  
Dept of Rehabilitation Medicine

### Dr Li Yiding

Associate Consultant,  
Dept of Rehabilitation Medicine

### Dr Insali Soe

Resident Physician,  
Dept of Rehabilitation Medicine

### Mr Christopher De Conceicao Paul

Prehabilitation Coordinator,  
Dept of Rehabilitation Medicine

### Ms Lina Jia

Nurse Clinician,  
Dept of Rehabilitation Medicine

# Specialist Promotions & Appointments

## NEW APPOINTMENTS



**Assoc Prof Tan Hiang Khoon**  
Group Director, International Collaboration Office (SingHealth);  
Director, SingHealth Duke-NUS Global Health Institute;  
**DCEO (Future Health System), SGH**



**Assoc Prof Phua Ghee Chee**  
Senior Consultant, Respiratory & Critical Care Medicine;  
DCEO (Hospital Experience), SGH;  
**Group Director (GD), Staff Wellness, SingHealth**



**Dr Gan Wee Hoe**  
Head & Senior Consultant, Occupational and Environmental Medicine, SGH;  
Deputy Group Chief Medical Informatics Officer (Acute Care), SingHealth;  
Chief Medical Informatics Officer, SGH;  
**Deputy Chief Executive Officer, SingHealth Community Hospitals**



**Assoc Prof Ho Sun Sien Henry**  
Head & Senior Consultant, Urology;  
**Chairman, Division of Surgery & Surgical Oncology, SGH and NCCS;**  
**Academic Chair, SingHealth Duke-NUS Surgery Academic Clinical Programme**



**Dr Sachin Mathur**  
*Head & Senior Consultant*  
**Dept**  
General Surgery



**Dr Sewa Duu Wen**  
*Head & Senior Consultant*  
**Dept**  
Respiratory & Critical Care Medicine



**Assoc Prof Yuen Shyi Peng John**  
*Head & Senior Consultant*  
**Dept**  
Urology



**Assoc Prof Low Lian Leng**  
Consultant, Family Medicine & Continuing Care;  
Chief Medical Informatics Officer, SingHealth Office of Regional Health;  
Director, SingHealth Office of Regional Health, SGH Campus;  
Director, Research & Translational Innovation Office, SCH;  
Director, PHICO, SGH;  
Co-Director for the Centre for Population Health Research and Implementation, SORH;  
**Medical Director, SingHealth Community Hospitals - Outram Community Hospital**

## PROMOTIONS – SENIOR CONSULTANTS



**Dr Oriana Ng**  
*Senior Consultant*  
**Dept**  
Anaesthesiology



**Dr Leow Wei Qiang**  
*Senior Consultant*  
**Dept**  
Anatomical Pathology



**Dr Tan Yongcheng Benjamin**  
*Senior Consultant*  
**Dept**  
Anatomical Pathology



**Dr Oh Choon Chiat**  
*Senior Consultant*  
**Dept**  
Dermatology



**Dr Mak May San**  
*Senior Consultant*  
**Dept**  
Diagnostic Radiology



**Dr Lim Jia Hao**  
*Senior Consultant*  
**Dept**  
Emergency Medicine

# Specialist Promotions & Appointments

## PROMOTIONS – SENIOR CONSULTANTS



**Dr Chin Yung Ka**  
*Senior Consultant*  
**Dept**  
Gastroenterology &  
Hepatology



**Dr Tan Teck Kiang  
Malcolm**  
*Senior Consultant*  
**Dept**  
Gastroenterology &  
Hepatology



**Dr Lao Zhentang**  
*Senior Consultant*  
**Dept**  
Haematology



**Dr Tan Chuen Wen**  
*Senior Consultant*  
**Dept**  
Haematology



**Dr Kalimuddin Shirin**  
*Senior Consultant*  
**Dept**  
Infectious Diseases



**Dr Than Aung**  
*Senior Consultant*  
**Dept**  
Internal Medicine



**Dr Tong Kian Ti, Aaron**  
*Senior Consultant*  
**Dept**  
Nuclear Medicine &  
Molecular Imaging



**Dr Lee Kong Hwee**  
*Senior Consultant*  
**Dept**  
Orthopaedic Surgery



**Dr Yeo Eng Meng  
Nicholas**  
*Senior Consultant*  
**Dept**  
Orthopaedic Surgery



**Dr Siti Radhiah Binte  
Sudirman**  
*Senior Consultant*  
**Dept**  
Otorhinolaryngology -  
Head & Neck Surgery



**Dr Chan Xin Hui, Diana**  
*Senior Consultant*  
**Dept**  
Pain Medicine



**Dr Liew Tau Ming**  
*Senior Consultant*  
**Dept**  
Psychiatry



**Dr Tan Ru Yu**  
*Senior Consultant*  
**Dept**  
Renal Medicine



**Dr Annie Law Hui Nee**  
*Senior Consultant*  
**Dept**  
Rheumatology &  
Immunology

## PROMOTIONS – CONSULTANTS



**Dr He Yingke**  
*Consultant*  
**Dept**  
Anaesthesiology



**Dr Kwee Ann Kerwen**  
*Consultant*  
**Dept**  
Endocrinology



**Dr Tan Jin Yang  
Terence**  
*Consultant*  
**Dept**  
Gastroenterology &  
Hepatology



## PROMOTIONS – CONSULTANTS



**Dr Chen Jing**  
*Consultant*  
**Dept**  
Rehabilitation Medicine



**Dr Tan Tze Chin**  
*Consultant*  
**Dept**  
Rheumatology & Immunology



**Dr Nick Ng Zhi Peng**  
*Consultant*  
**Dept**  
Vascular Surgery

## APPOINTMENT – SENIOR CONSULTANT



**Dr Ang Chia Chun**  
*Senior Consultant*  
**Dept**  
Dermatology

## APPOINTMENTS – CONSULTANTS



**Dr Chow Sau Yee**  
*Consultant*  
**Dept**  
Anaesthesiology



**Dr Kamen Petkov Valchanov**  
*Consultant*  
**Dept**  
Anaesthesiology

## APPOINTMENTS – ASSOCIATE CONSULTANTS



**Dr Khor Shao Nan**  
*Associate Consultant*  
**Dept**  
Colorectal Surgery



**Dr Li Kaiwen, Kelvin**  
*Associate Consultant*  
**Dept**  
Colorectal Surgery



**Dr Ho Shu Fang**  
*Associate Consultant*  
**Dept**  
Emergency Medicine



**Dr Tertius Tansloan Tuy**  
*Associate Consultant*  
**Dept**  
Haematology



**Dr Partana Pamela Sandriany**  
*Associate Consultant*  
**Dept**  
Obstetrics & Gynaecology



**Dr Kizher Shajahan Mohamed Buhary**  
*Associate Consultant*  
**Dept**  
Orthopaedic Surgery



**Dr Soh Teck Hwee**  
*Associate Consultant*  
**Dept**  
Psychiatry

# Specialist Promotions & Appointments

## PROMOTIONS – SENIOR CONSULTANTS



**Dr Kuan Kaibin Kelvin**  
*Senior Consultant*  
**Dept**  
Accident & Emergency



**Dr Manohara Shivani**  
*Senior Consultant*  
**Dept**  
Anaesthesia and  
Surgical Intensive Care



**Dr Tong Qian Jun**  
*Senior Consultant*  
**Dept**  
Anaesthesia and  
Surgical Intensive Care



**Dr Lim Yaozong Benji**  
*Senior Consultant*  
**Dept**  
Cardiology



**Dr Yong Thon Hon**  
*Senior Consultant*  
**Dept**  
Cardiology



**Dr Lee Shan Xian**  
*Senior Consultant*  
**Dept**  
Dermatology



**Dr Joe Francis**  
*Senior Consultant*  
**Dept**  
Diagnostic Radiology



**Dr Tan Chjoong Howe  
Alvin**  
*Senior Consultant*  
**Dept**  
Diagnostic Radiology



**Dr Chen Yuanxin  
Christine**  
*Senior Consultant*  
**Dept**  
Geriatric Medicine



**Dr Tan Sze Hwa**  
*Senior Consultant*  
**Dept**  
Laboratory Medicine



**Dr Sriranganathan  
Melonie Kannamma**  
*Senior Consultant*  
**Dept**  
Rheumatology

## PROMOTIONS – CONSULTANTS



**Dr Siow Wei Shyan**  
*Consultant*  
**Dept**  
Anaesthesia and  
Surgical Intensive Care



**Dr Teo Zhenwei**  
*Consultant*  
**Dept**  
Cardiology



**Dr Wang Yue**  
*Consultant*  
**Dept**  
Cardiology



**Dr Tay Khwee Soon  
Vincent**  
*Consultant*  
**Dept**  
Surgery

## APPOINTMENT – ASSOCIATE CONSULTANT



**Dr Ng Rui Zhi**  
*Associate Consultant*  
**Dept**  
Renal Medicine



## NEW APPOINTMENT



**Dr Naing Chaw Su**  
*Head & Senior Consultant*  
Internal Medicine  
Service

## PROMOTIONS – SENIOR CONSULTANTS



**Dr Victor Alan Cooke**  
*Senior Consultant*  
**Dept**  
Emergency Medicine



**Dr Tan Gan Liang**  
*Senior Consultant,  
Respiratory Medicine &  
Intensive Care Medicine*  
**Dept**  
General Medicine



**Dr Chia Sinn Yii Dawn**  
*Senior Consultant*  
**Dept**  
Orthopaedic Surgery

## PROMOTIONS – CONSULTANTS



**Dr Low Shun Yee**  
*Consultant*  
**Dept**  
Emergency Medicine



**Dr Wong Zi Yang**  
*Consultant*  
**Dept**  
Emergency Medicine



**Dr Kwan Kah Wai  
Clarence**  
*Consultant,  
Gastroenterology*  
**Dept**  
General Medicine



**Dr Chen Weizhen  
Jessica**  
*Consultant,  
Geriatric Medicine*  
**Dept**  
General Medicine



**Dr Low Su Hui Esther**  
*Consultant,  
Internal Medicine*  
**Dept**  
General Medicine



**Dr Tay Hui Boon**  
*Consultant,  
Renal Medicine*  
**Dept**  
General Medicine



**Dr Chuah Tyng Yu**  
*Consultant,  
Rheumatology*  
**Dept**  
General Medicine



**Dr Nur Emillia Binte  
Roslan**  
*Consultant,  
Rheumatology*  
**Dept**  
General Medicine



**Dr Ganti Srujana**  
*Consultant*  
**Dept**  
Radiology



**Dr Lim Hui Shan  
Cheryl**  
*Consultant*  
**Dept**  
Radiology



**Dr Koh Hong Xiang  
Frederick**  
*Consultant*  
**Dept**  
Surgery

# Specialist Promotions & Appointments

## APPOINTMENT – CONSULTANT



**Dr Tsang Yun Ying**  
**Tammy**  
Consultant  
**Dept**  
Psychiatry

## APPOINTMENTS – ASSOCIATE CONSULTANTS



**Dr Wu Qianhuang Ian**  
Associate Consultant,  
Haematology  
**Dept**  
General Medicine



**Dr Chue Koy Min**  
Associate Consultant  
**Dept**  
Surgery



**Dr Leong Qi Hui Faith**  
Associate Consultant  
**Dept**  
Surgery



KK Women's and  
Children's Hospital  
SingHealth

Appointments: 6692 2984 | Email: [centralappt@kkh.com.sg](mailto:centralappt@kkh.com.sg)

## NEW APPOINTMENTS



**Dr Chew Chu Shan**  
**Elaine**  
Head & Senior  
Consultant  
Adolescent Medicine  
Service



**Dr Yeo Tong Hong**  
Head & Senior  
Consultant  
Neurology Service



**Dr Biju Thomas**  
Head & Senior  
Consultant  
Respiratory Medicine  
Service



**Prof Chan Kok Yen**  
**Jerry**  
Director, SingHealth  
Duke-NUS Maternal  
and Child Health  
Research Institute;  
Senior Consultant  
**Dept**  
Reproductive Medicine

## APPOINTMENTS – ASSOCIATE CONSULTANTS



**Dr Vidya Ramasamy**  
Associate Consultant  
**Dept**  
Child Development



**Dr Leow Syen Yee**  
Associate Consultant  
**Dept**  
Dermatology



**Dr Supranee**  
**Mathiprechakul**  
Associate Consultant  
**Dept**  
Emergency Medicine



## APPOINTMENTS – ASSOCIATE CONSULTANTS



**Dr Tan Shi Rui, Victoria**  
*Associate Consultant*  
**Dept**  
Emergency Medicine



**Dr Yap Shi Yi, Eileen**  
*Associate Consultant*  
**Dept**  
Emergency Medicine



**Dr Chan Shi Hua**  
*Associate Consultant*  
General Paediatrics  
Service



**Dr Cheng Duo Tong**  
*Associate Consultant*  
General Paediatrics  
Service



**Dr Reinoso Marie  
Giselle Cordero**  
*Associate Consultant*  
General Paediatrics  
Service



**Dr Liang Wei Han,  
Keith**  
*Associate Consultant*  
General Paediatrics  
Service



**Dr Wu Song Lian Ryan**  
*Associate Consultant*  
General Paediatrics  
Service



**Dr Lee Ming Wei**  
*Associate Consultant*  
Haematology /  
Oncology Service



**Dr Ng Wei Ling, Stacy  
(Huang Weilin)**  
*Associate Consultant*  
**Dept**  
Orthopaedic Surgery



**Dr Ku Chee Wai**  
*Associate Consultant*  
**Dept**  
Reproductive Medicine



**Dr Huang Junjie**  
*Associate Consultant*  
Rheumatology and  
Immunology Service



**Dr Tan Chunzhen**  
*Associate Consultant*  
**Dept**  
Psychological Medicine

## PROMOTIONS – SENIOR CONSULTANTS



**Clin Asst Prof Ng  
Wee Loon**  
*Senior Consultant*  
**Dept**  
Breast and  
Gynaecology,  
Division of Radiation  
Oncology



**Clin Asst Prof Chua  
Lee Min Kevin**  
*Senior Consultant*  
**Dept**  
Head & Neck and  
Thoracic,  
Division of Radiation  
Oncology



**Clin Asst Prof Chew  
Lee Lian**  
*Senior Consultant*  
Division of Oncologic  
Imaging



**Asst Prof Ong Chin-  
Ann Johnny**  
*Senior Consultant*  
**Dept**  
Sarcoma, Peritoneal  
and Rare Tumours,  
Division of Surgery &  
Surgical Oncology,  
SGH and NCCS



**Clin Asst Prof Soh  
Tze Ling Gwendoline  
Beatrice**  
*Senior Consultant*  
Division of Supportive  
& Palliative Care

# Specialist Promotions & Appointments

## PROMOTION – CONSULTANT



**Dr Chua Wan Ying Gail**

*Consultant*

**Dept**

Lymphoma, Sarcoma, Neurology and Paediatrics, Division of Radiation Oncology

## APPOINTMENT – ASSOCIATE CONSULTANT



**Dr Sin Huili Iris**

*Associate Consultant*

**Dept**

Breast and Gynaecology, Division of Radiation Oncology



National Dental  
Centre Singapore  
SingHealth

Appointments: 6324 8798 | Email: [appointment@ndcs.com.sg](mailto:appointment@ndcs.com.sg)

## PROMOTION – SENIOR CONSULTANT



**Dr Tan Li Yen, Elaine**

*Senior Consultant*

**Dept**

Orthodontics

## PROMOTIONS – CONSULTANTS



**Dr Shi Hongyi, Adrian**

*Consultant*

**Dept**

Oral & Maxillofacial Surgery



**Dr Lim Wen Yi**

*Consultant*

**Dept**

Restorative Dentistry

## APPOINTMENTS – ASSOCIATE CONSULTANTS



**Dr Koh Teck Yeow**

**William**

*Associate Consultant*

**Dept**

Oral & Maxillofacial Surgery



**Dr Maria Bte Rahmat**

*Associate Consultant*

**Dept**

Restorative Dentistry



**Dr Sun Yue Stella**

*Associate Consultant*

**Dept**

Restorative Dentistry



## APPOINTMENTS – ASSOCIATE CONSULTANTS



**Dr Tan Zhi Hui, Janice**  
*Associate Consultant*  
**Dept**  
Restorative Dentistry



National Heart  
Centre Singapore  
SingHealth

**Appointments: 6704 2222 | Email: [central.appt@nhcs.com.sg](mailto:central.appt@nhcs.com.sg)**

## NEW APPOINTMENT



**Dr Philip Pang Yi Kit**  
*Deputy Head (Cardiac) & Consultant*  
**Dept**  
Cardiothoracic Surgery  
**Sub-specialty**  
Cardiac Surgery (Adult)

## APPOINTMENTS – ASSOCIATE CONSULTANTS



**Dr Kamalesh Anbalakan**  
*Associate Consultant*  
**Dept**  
Cardiology  
**Sub-specialties**  
Heart Failure,  
Echocardiography



**Dr Cai Xinzhe James**  
*Associate Consultant*  
**Dept**  
Cardiology  
**Sub-specialties**  
Echocardiography,  
Nuclear Medicine



**Dr Tan Xian-Li Olivia**  
*Associate Consultant*  
**Dept**  
Cardiology  
**Sub-specialties**  
Cardiac Imaging,  
Echocardiography



**Dr Tay Cheong Kiat Julian**  
*Associate Consultant*  
**Dept**  
Cardiology  
**Sub-specialty**  
Electrophysiology &  
Pacing



**Dr Huang Mingjie**  
*Associate Consultant*  
**Dept**  
Cardiothoracic Surgery  
**Sub-specialty**  
Thoracic Surgery

# Specialist Promotions & Appointments



**Appointments:**  
(SGH Campus) 6326 6060  
(TTSH Campus) 6330 6363

**Email:**  
gpnetwork@sgh.com.sg  
appointments@nni.com.sg

## NEW APPOINTMENT



**Prof Lo Yew Long**  
*Group Director, Research (Research Integrity, Compliance and Ethics), SingHealth;*  
*Deputy Chief Executive Officer (Medical Affairs & Quality Management), NNI;*  
*Senior Consultant*  
**Dept**  
Neurology

## PROMOTIONS – SENIOR CONSULTANTS



**Dr Lim Ee Wei**  
*Senior Consultant*  
**Dept**  
Neurology



**Dr Ng Kok Pin**  
*Senior Consultant*  
**Dept**  
Neurology



**Dr Yeo Tianrong**  
*Senior Consultant*  
**Dept**  
Neurology

## PROMOTION – CONSULTANT



**Dr Chen Min Wei**  
*Consultant*  
**Dept**  
Neurosurgery



**Appointments:** 6322 9399 | **Email:** appointments@s nec.com.sg

## PROMOTIONS – SENIOR CONSULTANTS



**Dr Siak Jyh Kuen Jay**  
*Senior Consultant*  
**Dept**  
Ocular Inflammation &  
Immunology  
**Sub-specialty**  
Ophthalmology



**Dr Tan Keng Leng Deborah**  
*Senior Consultant*  
**Dept**  
Paediatric  
Ophthalmology &  
Adult Strabismus  
**Sub-specialty**  
Ophthalmology

# Recruitment

## Embark on a Life-Changing Journey with a Career at SingHealth

If you are a qualified doctor, a challenging career awaits you at SingHealth. We seek suitably qualified candidates to join us as:

- SENIOR CONSULTANTS/  
CONSULTANTS/  
ASSOCIATE CONSULTANTS
- RESIDENT PHYSICIANS
- STAFF REGISTRARS/  
SERVICE REGISTRARS

Interested applicants are to email your CV with full personal particulars, educational and professional qualifications (including housemanship details), career history, present and expected salary, names of at least two professional references, contact numbers and email address together with a non-returnable photograph.

Please email your CV to the respective institutions' email addresses/online career portals with the Reference Number DM2204.



The SingHealth Duke-NUS Academic Medical Centre draws on the collective strengths of SingHealth and Duke-NUS Medical School to drive the transformation of healthcare and provide affordable, accessible, quality healthcare.

With 42 clinical specialties, a network of 4 Hospitals, 5 National Specialty Centres, 8 Polyclinics and 3 Community Hospitals, it delivers comprehensive, multidisciplinary and integrated care.

### Singapore General Hospital

#### Departments seeking:

##### Resident Physicians and Staff Registrars

- Anaesthesiology
- Breast Surgery
- Colorectal Surgery
- Diagnostic Radiology
- Emergency Medicine
- ENT- Head & Neck Surgery
- Gastroenterology & Hepatology
- General Surgery
- Haematology
- Hand & Reconstructive Microsurgery
- Infectious Diseases
- Orthopaedic Surgery (Sport & Exercise Medicine Centre)
- Plastic, Reconstructive & Aesthetic Surgery
- Rehabilitation Medicine
- Renal Medicine
- Rheumatology & Immunology
- SPRiNT (Sarcoma, Peritoneal & Rare Tumours)
- Staff Clinic
- Vascular Surgery
- Urology

##### Associate Consultant/Consultant/ Senior Consultant

- Occupational & Environmental Medicine
- SPRiNT (Sarcoma, Peritoneal & Rare Tumours)
- Clinical Epidemiologist

**Website:** [www.sgh.com.sg](http://www.sgh.com.sg)

**Career Portal:** [www.sgh.com.sg/careers](http://www.sgh.com.sg/careers)

**Email:** [careers.medical@sgh.com.sg](mailto:careers.medical@sgh.com.sg)

### Changi General Hospital

#### Departments seeking:

##### Resident Physicians and Staff Registrars

- Accident & Emergency
- Anaesthesia & Surgical Intensive Care
- Cardiology
- Diagnostic Radiology
- Medicine
- Neurosurgery
- Ophthalmology
- Orthopaedic Surgery
- Psychological Medicine
- Surgery
- Urology

##### Associate Consultants

- Anaesthesia & Surgical Intensive Care
- Dermatology
- Laboratory Medicine
- Orthopaedic Surgery
- Rheumatology
- Surgery

##### Dental Surgeon

- Oral & Maxillofacial

**Website:** [www.cgh.com.sg](http://www.cgh.com.sg)

**Email:** [medical\\_hr@cgh.com.sg](mailto:medical_hr@cgh.com.sg)

### Sengkang General Hospital

#### Departments seeking:

##### Resident Physicians and Staff Registrars

- Anaesthesiology
- Cardiology
- Emergency Medicine
- Surgery
- General Medicine (with interest in Dermatology and Palliative Medicine)
- Intensive Care Medicine
- Orthopaedic Surgery (with interest in Hand Surgery and Orthopaedic Surgery)
- Otorhinolaryngology - Head & Neck Surgery
- Plastic, Reconstructive & Aesthetic Surgery Service
- Urology

##### Senior Consultant, Consultant, Associate Consultant

- Gastroenterology
- Infectious Diseases
- Intensive Care Medicine
- Otorhinolaryngology - Head & Neck Surgery
- Pathology
- Radiology

**Website:** [www.skh.com.sg](http://www.skh.com.sg)

**Career Portal:** [www.skh.com.sg/careers/Pages/careers.aspx](http://www.skh.com.sg/careers/Pages/careers.aspx)

**Email:** [careers@skh.com.sg](mailto:careers@skh.com.sg)

### KK Women's and Children's Hospital

#### Departments seeking:

##### Associate Consultants/Consultants/ Senior Consultants

- Pathology & Laboratory Medicine (Gynaecologic & Breast Pathologist, Microbiologist and Chemical Pathologist)
- Diagnostic & Interventional Imaging

##### Associate Consultants/Consultants

- Dermatology

##### Staff Registrars

- Child Development
- Diagnostic & Interventional Imaging
- Neurology Service
- Paediatric Surgery

##### Family Physician

- Family Medicine

##### Resident Physicians

- Diagnostic & Interventional Imaging
- Emergency Medicine
- Ophthalmology Service
- Orthopaedic Surgery
- Otolaryngology
- Paediatric Medicine
- Paediatric Surgery
- Psychological Medicine
- Women's Anaesthesia

**Website:** [www.kkh.com.sg](http://www.kkh.com.sg)

**Email:** [medical.hr@kkh.com.sg](mailto:medical.hr@kkh.com.sg)

### National Cancer Centre Singapore

#### Departments seeking Resident Physicians

- Breast Surgery
- SingHealth Investigational Medicine Unit (IMU)

**Website:** [www.nccs.com.sg](http://www.nccs.com.sg)

**Email:** [HR-Clinical@nccs.com.sg](mailto:HR-Clinical@nccs.com.sg)

### National Heart Centre Singapore

#### Departments seeking Resident Physicians and Staff Registrars

- Cardiology
- Cardiothoracic Surgery

**Website:** [www.nhcs.com.sg](http://www.nhcs.com.sg)

**Email:** [falicia.tui.y.x@nhcs.com.sg](mailto:falicia.tui.y.x@nhcs.com.sg)

### National Neuroscience Institute

#### Departments seeking Resident Physicians and Service Registrars

- Neurology
- Neuroradiology
- Neurosurgery

**Website:** [www.nni.com.sg](http://www.nni.com.sg)

**Email:** [nni\\_hr@nni.com.sg](mailto:nni_hr@nni.com.sg)

### Singapore National Eye Centre

#### Department seeking

- Clinical Associate
- Resident Physician, Ophthalmology
- Staff Registrar, Ophthalmology

For more information, please visit the Career Opportunities section on the Singapore National Eye Centre website.

**Website:** [www.snec.com.sg](http://www.snec.com.sg)

**Email:** [recruitment@snec.com.sg](mailto:recruitment@snec.com.sg)

### SingHealth Community Hospitals (Sengkang Community Hospital, Outram Community Hospital and Bright Vision Hospital)

#### Department seeking:

##### Staff Registrars, Resident Physicians

- Family Medicine

**Website:** <http://www.singhealthch.com.sg/>

**Career Portal:** [www.singhealthch.com.sg/SCH/careers/Pages/Careers.aspx](http://www.singhealthch.com.sg/SCH/careers/Pages/Careers.aspx)

**Email:** [schrecruitment@singhealthch.com.sg](mailto:schrecruitment@singhealthch.com.sg)

## SGH Weekly Lunchtime GP Q+A Sessions (Aug - Oct)



Meet our specialists as they address your questions on the latest updates in their specialty area, patient care and the referral process.

<b>Date</b> Every Wednesday	<b>Time</b> 1pm to 2pm	<b>Hosted via</b> <b>Zoom Webinar</b>	<b>Free</b> <b>admission</b>
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Date	Session 1 (1pm to 1.30pm)	Session 2 (1.30pm to 2pm)
<b>AUG</b>		
<b>10 Aug</b>	<b>Dept of Hand &amp; Reconstructive Microsurgery</b> Dr Robert Yap (Head & Consultant)	<b>Dept of Rheumatology &amp; Immunology</b> Dr Warren Fong (Senior Consultant)
<b>24 Aug</b>	<b>Dept of Neurosurgery</b> Dr Lester Lee Chee Hoe (Consultant)	<b>Dept of Dept of Psychiatry</b> Assoc Prof Leslie Lim Eng Choon (Senior Consultant)
<b>SEP</b>		
<b>14 Sep</b>	<b>Dept of Otorhinolaryngology - Head &amp; Neck Surgery</b> Dr Vanessa Tan (Consultant), Dr Leong Zhou Hao (Associate Consultant)	<b>Dept of Gastroenterology &amp; Hepatology</b> Dr Ravishankar Asokkumar (Consultant)
<b>28 Sep</b>	<b>Dept of Plastic, Reconstructive &amp; Aesthetic Surgery</b> Dr Cheryl Hui (Associate Consultant)	<b>Dept of Urology</b> Dr Kenneth Chen (Consultant)
<b>OCT</b>		
<b>12 Oct</b>	<b>Dept of Orthopaedic Surgery</b> Dr Suraya Binti Zainul Abidin (Consultant)	<b>Dept of Obstetrics &amp; Gynaecology</b> Dr Lim Whui Whui (Associate Consultant)
<b>26 Oct</b>	<b>Dept of Breast Surgery</b> Dr Tan Si Ying (Associate Consultant)	<b>Dept of Endocrinology</b> Dr Zhu Ling (Consultant)



**Scan the QR code to register.**

For enquiries and to submit questions, please email to [gpnetwork@sgh.com.sg](mailto:gpnetwork@sgh.com.sg).



# CMEs & Courses



National Heart  
Centre Singapore  
SingHealth



Changi  
General Hospital  
SingHealth

## After the Acute Event Partnering Together to Protect Hearts and Lives

### Date

13 August 2022  
(Saturday)

### Time

12.30pm  
to 4.30pm

### Venue

Grand Copthorne Waterfront Hotel,  
392 Havelock Rd, Singapore 169663

### Free admission

Pre-registration  
required

**Myocardial infarctions continue to be a leading cause of morbidity and mortality in Singapore. While in-hospital treatments have contributed to better outcomes, the main determinant of longer-term prognosis is in secondary prevention efforts.**

Join us as we outline the latest advances in the secondary prevention of coronary events and how we can work together for shared care, including:

- Evolutions in antithrombotic therapy
- Diabetic and lipids management in primary care
- Shared care with GPs to help chronic coronary syndrome patients make the transition out of hospital-based care, back into the community



Scan the QR code for more information and to register.  
For enquiries, please email to [nhccme@nhcs.com.sg](mailto:nhccme@nhcs.com.sg).

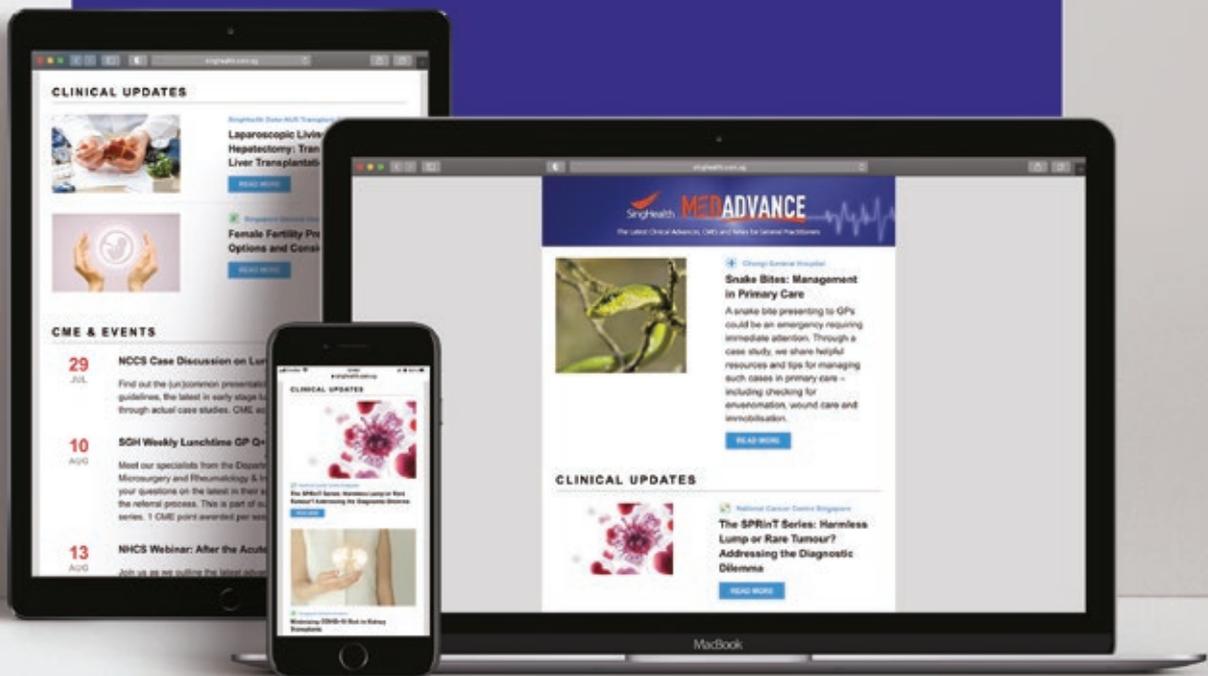


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## HOTLINES



### GP Fast Track Appointment Hotlines

 Singapore General Hospital <b>6326 6060</b>	 KK Women's and Children's Hospital <b>6692 2984</b>	 National Heart Centre Singapore <b>6704 2222</b>
 Changi General Hospital <b>6788 3003</b>	 National Cancer Centre Singapore <b>6436 8288</b>	 National Neuroscience Institute <b>6330 6363</b>
 Sengkang General Hospital <b>6930 6000</b>	 National Dental Centre Singapore <b>6324 8798</b>	 Singapore National Eye Centre <b>6322 9399</b>

[www.singhealth.com.sg](http://www.singhealth.com.sg)

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