

Real-world challenges when facilitating terminal discharge in Singapore

Dear Editor,

During the Ministry of Health workplan seminar held on 2 June 2022, Minister Ong Ye Kung expounded the notion of a good death and outlined the Ministry's vision and strategy for better care (and experience) for all near the end of life.¹ Specifically, he aimed to reduce the number of deaths in hospital among those with life-limiting illness from 61% to 51% in the next 5 years—fulfilling wishes of the majority to die at home. In relation to this, we share early findings of a multiphase research project.

Where any hospitalised patient's death is anticipated and imminent, prompt discharge from hospital to home may be arranged at the family's request.^{2,3} This expedited transfer has acquired different labels in the literature: rapid discharge, fast-tracked discharge, or terminal discharge (TD).^{3,4,5} In essence, TD is a complex healthcare intervention that involves close partnership between acute care providers and community hospice services.^{2,6-9} While perspectives of hospitalists have been documented, the experience of community providers has not been sought.^{9,10} Key knowledge gaps include: (1) overall demand and service utilisation⁹ and (2) perceptions of service quality, specifically over continuity of care.¹⁰

We conducted a parallel mixed-methods study to uncover the real-world experience of TD within HCA Hospice, Singapore's largest and oldest home-based palliative care service.¹¹ Medical records of referrals for TD from January to December 2020 were extracted. First, demographics, number of days in service (service-days), and service utilisation of patients referred for TD were collated and examined. Next, data were compared against a comparator group who were identified as actively dying after admission to home hospice and placed on a "Care-of-the-Dying" Pathway by the home hospice team. Categorical variables (i.e. sex, ethnicity and disease type) were analysed using chi-squared test; the distributions of continuous variables (e.g. age, service-days and mean healthcare utilisation) were compared between groups using independent t-test (for parametric distributions) or Mann-Whitney U test (for non-parametric distributions). Additionally, we surveyed via email 5 clinicians (1 triage nurse, 3 palliative medicine registrars, and 1

principal resident physician) who served as coordinators for TD in HCA. They answered 4 open-ended questions: (1) what defined a TD, (2) variations from norms encountered in practice, (3) critical information they often did not get in referrals and (4) suggestions for improving care. Underpinned by the systemic framework,¹² reflexive thematic analysis of responses was performed by author PHC, a post-doc qualitative methods researcher and Medical Director of the hospice.

Our findings produced 3 key insights. First, TD can be common. HCA received a total of 260 TD referrals (equivalent to 1 TD per workday); 199 (76.5%) were patients not previously known to the hospice; 32 patients did not leave hospital alive, 18 died at home with only telephone support, and 10 remained alive past the data collection period (1 week after 31 December 2020). The remaining 200 patients eventually died under home palliative care. Table 1 displays characteristics and service utilisation of TD and comparator groups. There were significantly more non-cancer patients in the TD group, compared with the non-TD group ($P<0.001$). The median service-days for deceased TD patients was 4 days; 75.0% died within 7 days of hospital discharge. Finally, within the last week of life, TD patients required significantly more support overall, both via on-site visits and remote telephone support. The differences in service-days and service utilisation between groups were mainly attributable to cancer patients; there was no difference between groups among non-cancer patients.

Second, qualitative findings indicated a need to standardise definitions and eligibility criteria for TD among all stakeholders. TD coordinators voiced concerns that assumptions about TD sometimes differed between themselves and hospital counterparts. This was corroborated by shorter service-days among existing patients assessed to be acutely dying by hospice providers, compared to the TD group (particularly among patients with cancer) as well as the wide variability of service-days among TD patients of up to 121 days. The differential understanding had sometimes frustrated hospice workers, who often prioritised the care of TD patients above other terminally ill patients under their care.

Third, key information was occasionally omitted during transition of care. These include current physical

Table 1. Characteristics of deceased patients who were terminally discharged versus comparator group.

Characteristics	TD patients (n=200)	Non-TD patients (n=434)	P value
Mean age (SD), years	75.3 (12.7)	74.5 (11.8)	0.438
Disease type, no. (%)			<0.001
Cancer	98 (49.0)	372 (85.7)	
Non-cancer	102 (51.0)	62 (14.3)	
Sex, no. (%)			0.557
Male	89 (44.5)	204 (47.0)	
Female	111 (55.5)	230 (53.0)	
Ethnicity, no. (%)			0.044
Chinese	150 (75.0)	330 (76.0)	
Malay	25 (12.5)	75 (17.3)	
Indian	13 (6.5)	18 (4.2)	
Others	12 (6.0)	11 (2.5)	
Service-days, ^a days			0.003
Median	4	3	
Range	0–121	0–64	
IQR	2.0–7.8	2.0–5.0	
Cancer subgroup			<0.001
Non-cancer subgroup			0.358
Service utilisation^b	TD patients (n=150)	Non-TD patients (n=356)	
Mean total contacts per service-day, no. (SD)	1.81 (1.29)	1.50 (0.90)	0.049
Cancer subgroup			0.015
Non-Cancer subgroup			0.389
Mean visits per service-day, no. (SD)	0.72 (0.60)	0.74 (0.45)	0.045
Cancer subgroup			0.419
Non-Cancer subgroup			0.647
Mean calls per service-day, no. (SD)	1.10 (0.90)	0.77 (0.70)	<0.001
Cancer subgroup			<0.001
Non-Cancer subgroup			0.203

IQR; interquartile range; SD: standard deviation

^a For TD patients, duration of service (service-days) is defined as the number of days from terminal discharge to death. For Non-TD patients, it is defined as the number of days between initiation of “Care-of-the-Dying” Pathway until death.^b Computed for the subset of patients who died within 7 days for both groups (n=150 for TD patients and n=356 for non-TD patients).Bold values indicate statistical significance ($P < 0.05$).

and cognitive status, all medications prepared, whether caregiver training was initiated, patient equipment needs, and special concerns (e.g. family coping levels). Suggestions for better care include invitations for hospital teams to access resource support from palliative care colleagues. TDs are not as prevalent in the acute ward setting; literature further highlights that hospitalists may be unfamiliar with steps involved, particularly if conducted in haste.^{2,5} At least 2 survey respondents recounted cases where patients have been discharged home without prior notice to hospice providers, picked up only when a crisis call is made by distressed family caregivers on the out-of-hours hospice helpline.

Patient and organisation-level data on TD from the community provider's perspective have never been reported previously. Our study findings would be of interest to agencies that offer similar rapid care transitions, both locally and outside Singapore. Beyond filling an evidence gap on the community perspective of a complex cross-agency intervention, our study findings also have practice and policy significance. First, a universal understanding (and proper handover) between professional providers potentially fosters seamless transfer of care during a challenging period for a patient. Second, an integrated care model built on these insights and collaboration between hospital and hospice is likely pivotal for good outcomes and patient safety. Third, we believe that quantitative indicators and outcomes reported in our study could be replicated among hospice services: for resource planning, to compare practice, and to consolidate towards population-level data to inform policy.

To conclude, we highlight real-world challenges from our multiphase research project aimed to facilitate terminal discharge in Singapore. Overcoming these challenges will require further longitudinal study with inputs from the triad of stakeholders: family caregivers, hospital providers and hospice workers.

REFERENCES

1. Ministry of Health, Singapore. Speech by Minister for Health, Mr Ong Ye Kung, at the MOH work plan seminar 2022, 2 June 2022. Published 3 June 2022. <https://www.moh.gov.sg/news-highlights/details/speech-by-minister-for-health-mr-ong-ye-kung-at-the-moh-work-plan-seminar-2022-2-june-2022>. Accessed 24 April 2023.
2. Tan YY, Blackford J. 'Rapid discharge': issues for hospital-based nurses in discharging cancer patients home to die. *J Clin Nurs* 2015;24:2601-10.
3. Gambles M, Cannell L, Bolger M, et al. Development and implementation of the Rapid Discharge Pathway Version 12 to enable imminently dying patients to die in the place of their choice. *Int J Care Pathw* 2012;16:14-8.
4. Gerrard R, Campbell J, Minton O, et al. Achieving the preferred place of care for hospitalised patients at the end of life. *Palliat Med* 2011;25:333-6.
5. Tan YY, Xu ZZ, Pang GS, et al. Facilitating terminal discharge: fulfilling the hospitalised patient's wish for home death in the final hours. *Int J Palliat Nurs* 2016;22:541-8.
6. Abrashkin KA, Cho HJ, Torgalkar S, et al. Improving transitions of care from hospital to home: what works? *Mt Sinai J Med* 2012; 79:535-44.
7. Naylor MD, Aiken LH, Kurtzman ET, et al. The importance of transitional care in achieving health reform. *Health Aff (Millwood)* 2011;30:746-54.
8. Eggen AC, Jalving M, Bosma I, et al. A methodology to systematically analyze the hospital discharge of terminally ill patients. *Medicine (Baltimore)* 2018;97:e12953.
9. Jones S, Hamilton S, Nicholson A. Rapid discharge from hospital in the last days of life: an evaluation of key issues and the discharge sister role. *Int J Palliat Nurs* 2015;21:588-95.
10. Smith R, Porock D. Caring for people dying at home: a research study into the needs of community nurses. *Int J Palliat Nurs* 2009;15:601-8.
11. Shorten A, Smith J. Mixed methods research: expanding the evidence base. *Evid Based Nurs* 2017;20:74-5.
12. Friedman, BD, Allen KN. Theory & practice in clinical social work. In Brandell JR. *Systems Theory*. 2nd edition. Thousand Oaks, CA: Sage; 2010.

Poh-Heng Chong ¹PhD,

Irene Hii ²MMED, Zhi-Zheng Yeo ¹MPH

¹ HCA Hospice, Singapore

² St Luke's Hospital, Singapore

Correspondence: Dr Poh-Heng Chong, HCA Hospice, 705 Serangoon Road, #03-01 Block A @ Kwong Wai Shiu Hospital, Singapore 328127. Email: pohhengC@hcahospicecare.org.sg