INDWELLING CATHETERS FOR THE MANAGEMENT OF MALIGNANT ASCITES AND PLEURAL EFFUSIONS: AN AUSTRALIAN AMBULATORY CARE MODEL

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INTRODUCTION

Malignant pleural effusions (MPE) are a common complication of advanced malignancy, The use of permanent indwelling pleural catheters (IPC) became an acceptable alternative intervention to video assisted thoracoscopic surgery (VATS) pleurodesis to manage MPE and its associated symptoms such as dyspnoea. Likewise, indwelling peritoneal catheters (IPeC) are used to manage ascites.

Presently there is little data on optimal treatment models to guide use of these devices for patients with advanced incurable cancer and malignant effusions. We present a Hospital in the Home (HITH) based service model, supported by a hospital-based palliative care outreach service.

AIMS

To retrospectively examine the patient cohort at our institution who received long-term tunnelled indwelling pleural or peritoneal catheters for management of malignant pleural effusion or ascites.

To identify the demographics of this patient population, the duration of catheter placement, and their outcomes and presence of patient factors predictive of improved or poorer clinical outcomes.

METHODS

Monash Health is a tertiary public hospital network in Melbourne, Australia servicing over 1.5 million residents and providing 3.2 million episodes of care per year. The Hospital in the Home service comprises 200 beds and delivers interventions to people in their private residence or residential aged care facility or clinic across the Monash Health catchment area.

Eligible patients for the study were patients admitted to the Monash Health HITH service over a 2-year period. Patients were eligible if admitted with tunnelled indwelling pleural or peritoneal catheters for management of malignant pleural effusion or ascites.

RESULTS

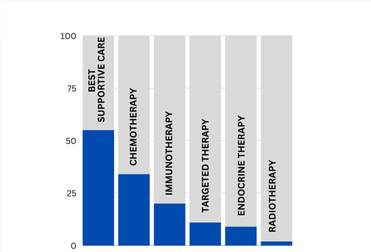
45 patients met inclusion criteria, admitted to HITH during the eligibility period for management of an IPC or IPeC. Median age was 71 years, and 27 (60%) were female.

There were 14 malignancy types in total and 16 (35%) patients were born in Australia (15 different other countries of birth), with 33 (73%) nominating English as their primary language (overall 7 primary languages).

Clinical Outcomes

	Indwelling Pleural Catheter (IPC)			Indwelling Peritoneal Catheter (IPeC)		
	Total	Range	Median & Interquartile Range	Total	Range	Median & Interquartile Range
Time Admitted to HITH in days	3164	7 – 389[a]	127 (179)	1815	6 – 306	48.5 (82)
Time Admitted to Acute Hospital in days[b]	123	0 - 14	4.5 (3)	153	0 - 24	5 (12)
Time Admitted to PCU in days	50	4 – 19	9 (6)	165	2 – 31	11 (22)
Time IPC/IPeC in place in days	3668	26 – 406[a]	127.5 (145)	2209	7 - 366	56.5 (75)

Oncological Treatment whilst under HITH

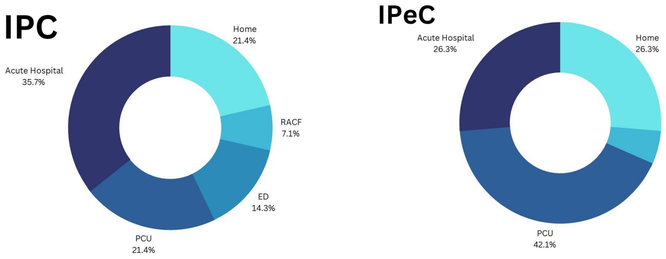


There were no statistically significant differences between the IPC and IPeC groups with respect to likelihood of acute admissions, palliative care unit admission or presence of complications.

The IPC group was more likely to die whilst undertaking disease-modifying oncological treatment than the IPeC group (p=.023).

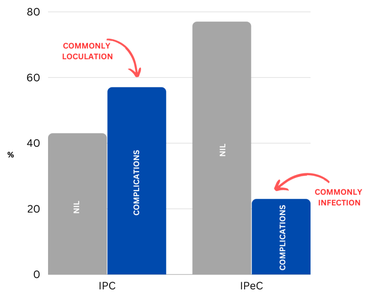
Thirty-four of 45 patients (76%) died during the study.

Place of Death



Overseas born patients were seemingly more likely to die in acute hospital but this did not achieve statistical significance (p=.061)

Complication Rate



DISCUSSION

Both IPC and IPeC patients have a potential for a considerable total length of stay (LOS) under the HITH program.

For patients expected to have a longer prognosis, achievement of early pleurodesis, planned removal of IPC, discharge from HITH to continue upon more disease-modifying oncological treatment lines, would be desirable from a patient, health economic, and resource allocation perspective.

For patients with IPC/IPeC, it may impede good palliative care discussions, with a reluctance, and a delay to engage with community palliative care services or goals of care discussions. Symptomatic success of IPC/IPeC and support of the HITH service may provide patients a sense of “life as normal”, focus on disease-modifying oncological treatment and denial of the poor prognosis of their advanced malignancy.

Patients of culturally and linguistically diverse (CALD) backgrounds with HITH managed IPC/IPeC, and pursuit of disease-modifying oncological treatment may make it difficult for CALD patients and caregivers to understand the palliative nature of treatment and accompanying poor prognosis, and these needs should be recognised.

CONCLUSION

Our study examines the introduction of IPC and IPeC as an intervention for management of pleural effusion and ascites at our institution and the indicative clinical outcomes and complications of such patients, which also comprise a significant CALD group with their unique needs.

It is apparent that patients spend considerable time under the HITH program and that the palliative needs of this population must be supported with appropriate services. This allows patients to pursue disease-modifying oncological treatments, derive optimal palliative symptom support but also should be an opportunity to undertake appropriate care goal discussions, advance care planning and decisions regarding their end-of-life care.

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