Cancer@Home

Model of Care Evaluation – Phase 1

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Background & Aims

With the shift of traditional cancer care from the hospital to home, Alfred Cancer has implemented innovative models of care to meet service demands in the ambulatory space. In 2021, Alfred Cancer embarked on Cancer@Home. The objective was to develop capabilities and care pathways to enable the provision of timely quality care. To provide preventative outpatient interventions, to avoid patients having an acute deterioration requiring hospitalisation was the aim, as well as improve patient experience beyond the walls of the hospital. Our initiatives focused not only on delivering cancer treatments in the home but also ensuring resources were available in the ambulatory same-day setting. We aimed to transfer 40% of our overall cancer activity to Cancer@Home and with Phase 1 completed, the evaluation of this phase is presented here.

Patient Feedback

- Not having to Travel
- Convenient
- Saves Time
- Treatment is over quickly

- Nurses are cheerful, dedicated & competent- put you at ease
- High professionalism & attitude
- Brilliant service very happy with my care
- Everything, congratulations on the staffs professionalism

- Not as exhausting
- It's relaxing
- Less stress
- Keeps me safe

Method

A lean-thinking (transformational) framework and established change management methodology was used throughout the project, where Cancer@Home philosophy underpinned all approaches to new models of care being designed. Process improvement methodology was adopted to facilitate change management. Three phases were planned for Cancer@Home.

Phase 1 Saw the introduction of several initiatives that addressed gaps which included care in the home, outreach programs and outpatient resources to ensure progression of care could occur outside the walls of the hospital. Refer Diagram 1.

Upskilling and credentialing the generalist HITH nurses was required in ADAC as well as specific chemotherapy/immunotherapy education provided to HITH staff by the Alfred Cancer educators. A Cancer HITH nurse coordinator was employed for the first 12 months of the pilot to identify suitable patients and drive new referrals.

Initially a 1.0EFT SURC nurse was employed and after 12 months of data, a successful business case saw the clinic expand to include an additional 0.7EFT nursing, 0.5EFT pharmacist and 0.2EFT junior medical staff and service expansion from Monday to Friday to include a telephone on call service on weekends and public holidays.

PATS employed a 1.0EFT Nurse Practitioner and 0.2EFT Medical Consultant, and outpatient Allied Health employed 0.3EFT Dietitian, 0.4EFT Speech Pathologist and 0.2EFT Psychologist. Inpatient Allied Health saw additional EFT added to both Physiotherapy and Occupational Therapy services.

Phase 2 will see the introduction of supportive care treatments e.g. blood transfusions (not yet implemented)

Phase 3 Clinical Trials in the home (not yet implemented)

Results

Phase 1 - Results: Model of Care developed as seen in Diagram 1

Initiative	Result
Cancer HITH – immunotherapies/ chemotherapies	1100 treatments were delivered in the home FY21/22 & 22/23, creating capacity within the day chemotherapy center (HOC) and meeting our target of 40% eligible patients transferred to HITH. Evaluation of the program determined patients were 88% happy with the program and overall preferred this experience than attending a hospital environment. See patient feedback.
SURC (Symptom Urgent Review Clinic)	Since commencing SURC in October 2020, Alfred Health has seen a rapid increase in the use of the SURC service. Prior to SURC in 2019, the percentage of Haematology Oncology Centre (HOC) presentations that also presented to ED was 4.86% (9294 HOC presentations; 452 ED presentations). This has fallen year on year since the introduction of SURC, but most significantly from 4.35% in 2021, to 3.76% in 2022 (10,476 HOC presentations; 394 ED presentations) Refer Diagram 2. Overall SURC patient experience data is overwhelmingly positive, highlighting that care is able to be progressed in a rapid timeframe, that patients are always treated with respect and dignity as well as the quality of care being very good.
PATS (Palliative Assessment & Treatment Service)	Costs saved through reduced length of stay since the introduction of PATS ($388,411 saved over 12 months); Interventions are namely carried out in Emergency Department & Residential Aged Care Facilities, allowing end of life care to be provided in the community and in the patients residence.
Allied Health (AH) outpatient resources	Outpatient AH: 58% of patients experienced a halt in their weight loss or gained weight after receiving outpatient dietitian input; 600% increase in the number of individual patients supported by Speech Pathology. Previously there was limited allied health services within the outpatient service (1.0EFT Social Work only).
Multiday AH resources (Psychology, Physio, OT)	Inpatient AH: 21% reduction in length of stay for those patients receiving AH intervention as an inpatient. 1.96 bed days per patient. Financial impact analysis demonstrates this is equivalent to 1482 bed days equating to 4 beds saved per annum and $1.18million in potential additional NWAU revenue as a bed substitution (@ 50% marginal rate).
Tumour Stream Coordinators (Breast, Lung, GI, Neuro Oncology)	5.5EFT dedicated tumour stream coordinators on boarded which has significantly enhanced the patient experience and reduced hospital presentations.

Since the introduction of all of these initiatives, Alfred Cancer has observed a overall 11% decline in Emergency Department (ED) presentations. Refer Diagram 3.

Next Steps – Phase 2: As we look to launch Phase 2 of Cancer@Home (supportive care treatments), this will involve an additional 2,003 episodes of care in the home across FY 23/24. We will continue to recruit into new tumour stream cancer nurse coordinator and nurse practitioner roles as well as expanding existing services (SURC, PATS) and advocating for additional AH services for both Alfred Cancer inpatients & outpatients.

Diagram 1: Model of Care

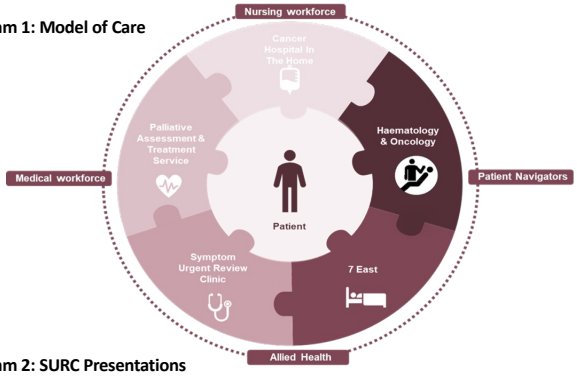


Diagram 2: SURC Presentations

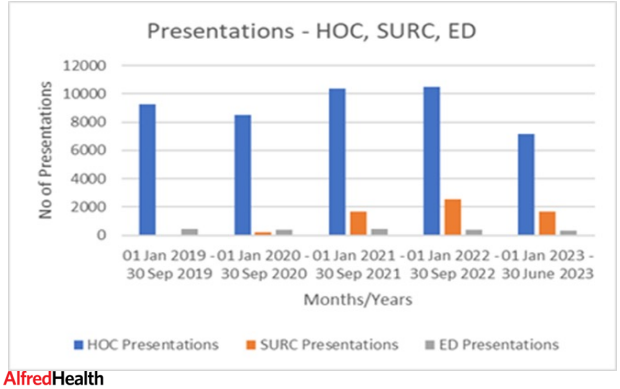
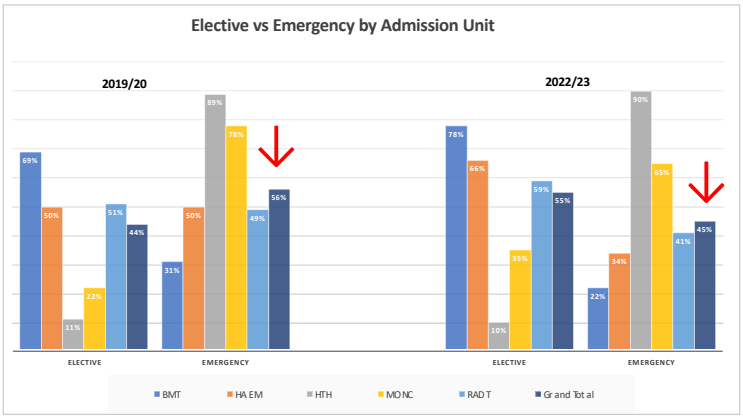


Diagram 3: Emergency Admission Reductions



Conclusion

Releasing this activity to the home has allowed for increased capacity to treat patients who require more complex and intensive therapies. This has resulted in;

- Improvement in quality of service and patient experience
- Improved timely quality care - No wait times for patients to receive treatment through day chemotherapy; timely access for new and rescheduled patients; rapid access to tumour stream coordinators, reduction in presentation to emergency department, supporting communities with palliative care services, early allied health interventions.
- Financial revenue – NWAU generated