

COVID-19 prompts rapid and safe transition of chemotherapy into homes

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Abstract. With the identification of the COVID-19 pandemic in early 2020, cancer-based clinical services in South Australia moved quickly to protect patients on active anti-cancer treatment who are particularly vulnerable to infective complications. This took the form of shifting 600 chemotherapy visits into the patients' homes via expansion of an existing arrangement between a public hospital network and an established private home chemotherapy service. Despite calls for caution from some oncology organisations and a relative paucity in specific clinical data supporting this approach, it proved to be a safe and efficient transition with additional unexpected benefits.

Keywords: COVID-19, home chemotherapy administration, cancer therapy delivery, in-home services, Australia, public–private health partnership, hospitals, models of care.

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With the identification of the COVID-19 pandemic in early 2020, cancer-based clinical services in South Australia moved quickly to protect patients on active anti-cancer treatment who are particularly vulnerable to infective complications. Home chemotherapy administration services are not new but are still a relatively fresh development in cancer therapy delivery and most treatment is still administered through day centres or similar outpatient services. Admission for chemotherapy remains the second most common reason for admission to hospital.¹ COVID-19 has triggered a rapid shift of chemotherapy delivery into the home setting, which already has some support.^{2,3} However, the American Society of Clinical Oncology (ASCO) released a cautionary statement in June 2020, recommending further research into the safety of home chemotherapy administration along with appropriate oncologist oversight and accreditation.⁴ Our recent experience has shown that home chemotherapy delivery is a safe alternative to hospital-based administration with particular benefits during the COVID-19 pandemic and should therefore be considered for further utilisation.

In Central Adelaide Local Health Network, a partnership was created with a well-established private chemotherapy provider, chemo@home, and a three-phase referral process to prioritise

timely implementation was defined through a collaborative approach:

1. Patients required to attend over four visits per month, those in care facilities or difficulty with ambulation;
2. Patients receiving immunotherapy with checkpoint-inhibitors, treatment for breast cancer, and selected lymphoma therapies; and
3. Patients receiving other therapies including treatment for colorectal cancer.

Patients in each phase were identified by cancer day-unit staff and reviewed by the Clinical Operations Manager. Specialists then approved the patient's referral, and the referral paperwork was completed with the assistance of a chemo@home liaison placed in the hospital. From this point the chemo@home processes were activated including bookings, treatment orders, pharmacy review, and clinical correspondence. During the period April–July 2020, chemo@home provided 600 home visits for cancer services, the majority (443) being public funded visits. To provide this service chemo@home were required to significantly increase staffing to process admissions and perform home visits, as well as secure additional equipment, vehicles, and telecommunication devices.

There were no unexpected adverse events that occurred during this period and only a single safety incident was reported. Additional benefits to home chemotherapy administration came to light during this period of increased utilisation, including the safety of relative isolation at home, reduced patient transport needs and associated expenses, higher levels of patient support and education, and reduced patient and visitor traffic in hospitals.

Whilst ASCO calls for caution, the Grattan Institute's report⁵ for the Australian post-lockdown context makes a clear call for increases to out-of-hospital and in-home services to augment or replace existing inpatient delivery models. We agree with ASCO that this must be done with safety as the highest priority, but the framework already exists here in Australia.⁶ With appropriate clinical governance, specialist oversight, training and accreditation, home chemotherapy administration should expand further and will likely become part of standard clinical practice, even after the COVID-19 pandemic concludes.

Competing interests

We declare there are no competing interests to disclose beyond the stated contractual relationship between chemo@home as a private provider of chemotherapy services and the Central Adelaide Local Health Network, as well as the authors' leadership roles within these two organisations.

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