

Evolving Landscape of Oncology Care at Home in the Era of the COVID-19 Pandemic, a Market Intelligence Report

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Background

- The incidence of cancer diagnosis is increasing, with approximately 1.8 million Americans diagnosed in 2020.¹ The standard of care for almost everyone requiring chemotherapy has traditionally been to be treated in a physician's office or in outpatient clinics.
- There has been a significant shift in the site of care from the physician's office to favor the hospital outpatient settings.² The cost of care differs as the site of care changes, with at-home-care being more cost-effective than the physician's office and outpatient hospital infusion facilities.³
- There are now providers bringing care out of the traditional setting and to the patient. One such example in the University of Pennsylvania's collaborative program that leverages the services of a multidisciplinary care team to offer patients services like access to a wide array of chemotherapeutics. The program took advantage of an existing, but underutilized, framework to launch their at-home cancer care program in late 2019 and saw a 700% increase in participating patients in March-April of 2020. The program demonstrates the equally safe administration of many infused and injectable cancer medications at home compared to the hospital.⁴
- Beyond the scope of infusions and injectable cancer drugs, many at-home supportive care modalities exist for patients with cancer. Some of the services include nursing care, physical therapy, occupational nutritional support, and volunteers from home care agencies that give emotional support.⁵ As the COVID-19 crisis evolved into a pandemic, safety concerns for immunocompromised patients propelled shifts in the site of care into the patient's home.

Objective

- To summarize the changes in oncology clinical practice and managed care policies and programs as seen during the era of the COVID-19 pandemic, with specific regard to the shift in care into the patient's home.

Methods

- Conducted a review of the published and grey literature describing and discussing the changes to oncology clinical practice and managed care policies and programs, with regards to the shift in cancer care into the patient's home during the COVID-19 pandemic.
- Evaluated the site of care policies (SOC) of payers to identify common trends in their expansion of coverage for various chemotherapy infusion regimens to be administered in the home setting.

Analysis: Descriptive

Results

Figure 1. Nursing shortage^{6,7}

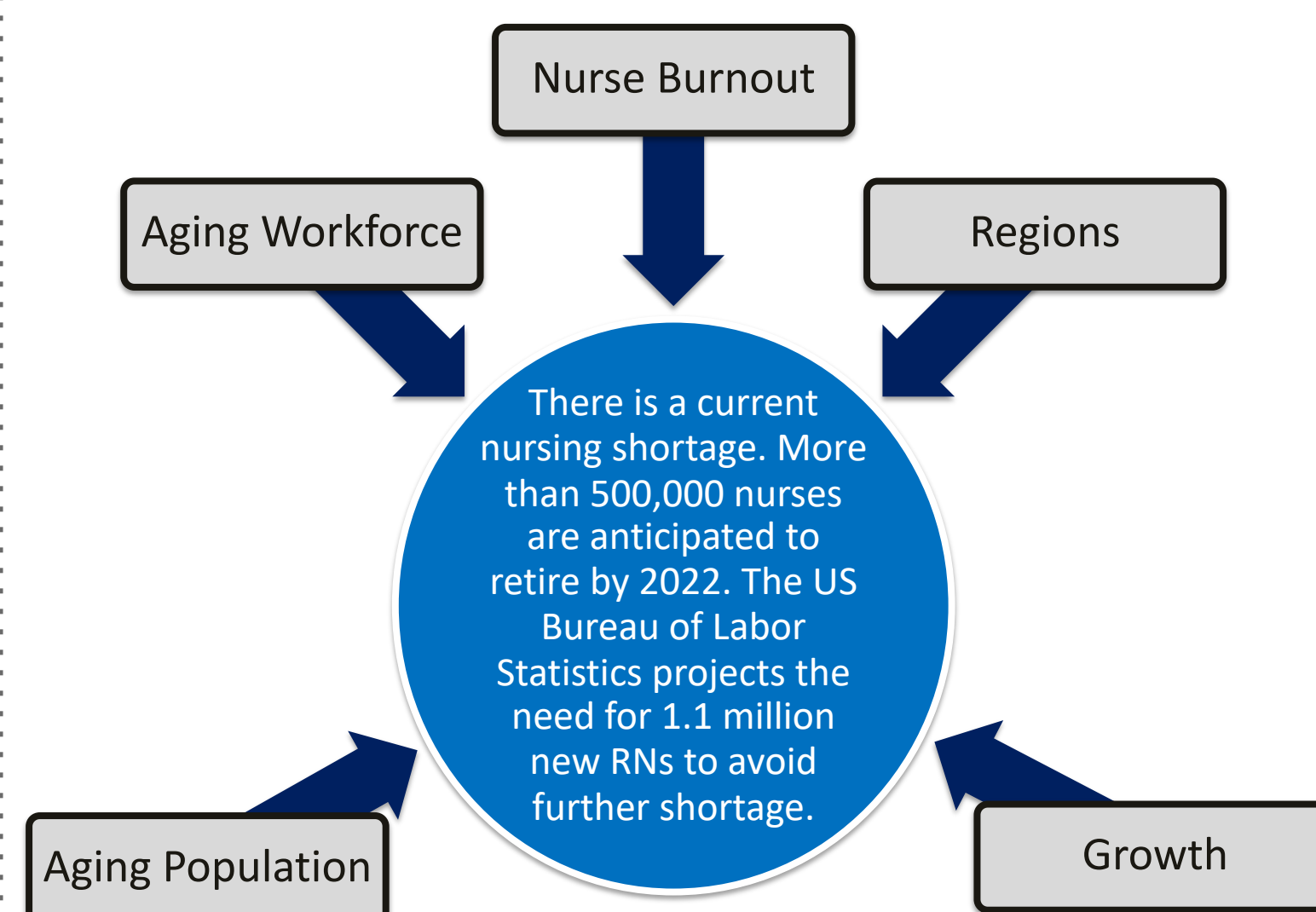


Figure 3. Example of patient feedback for leuprolide treatment at home⁴

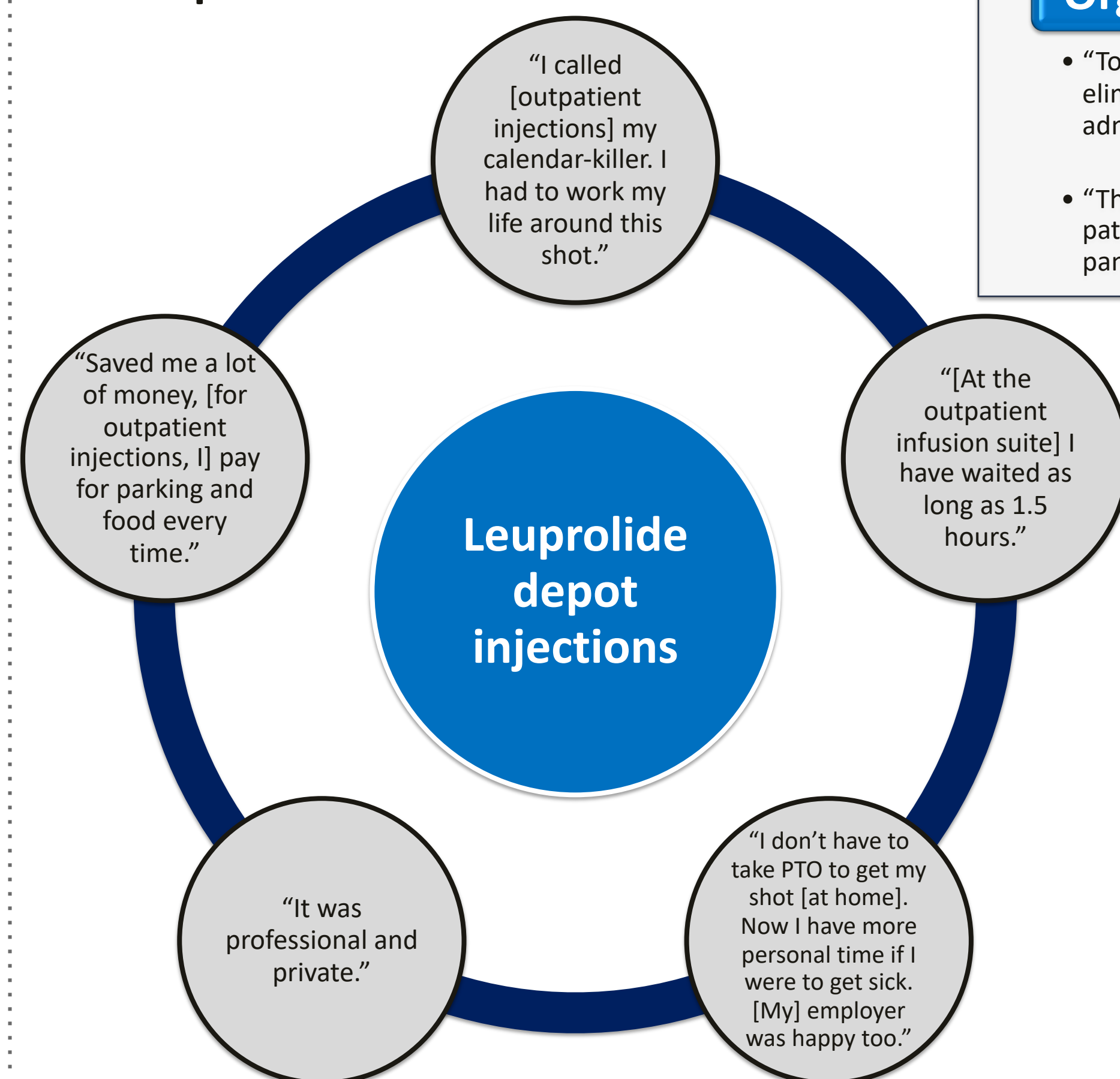


Figure 2. Recent FDA drug approvals that facilitate treatment at home⁸⁻¹⁰

Phesgo Injection

- "Currently, most patients with HER2-positive breast cancer receive trastuzumab and pertuzumab at infusion centers. With a new administration route, Phesgo offers an out-patient option for patients to receive trastuzumab and pertuzumab."
- "As part of the FDA's ongoing commitment to address the novel coronavirus pandemic, we continue to keep a strong focus on patients with cancer who constitute a vulnerable population at risk of contracting the disease."

Inqovi Tablets

- "The FDA remains committed to providing additional treatments to patients during the coronavirus pandemic. In this case, the FDA is making available an oral outpatient treatment option that can reduce the need for frequent visits to health care facilities."
- "At this critical time, we continue to focus on providing options to patients with cancer, including regimens that can be taken at home."

Orgovyx Tablets

- "Today's approval marks the first oral drug in this class and it may eliminate some patients' need to visit the clinic for treatments that require administration by a health care provider."
- "This potential to reduce clinic visits can be especially beneficial in helping patients with cancer stay home and avoid exposure during the coronavirus pandemic."

Table 1. Examples of medications included in 8 payer's SOC policies

Medications
Monoclonal Antibodies
Erbitux (cetuximab)
Vectibix (panitumumab)
Herceptin (trastuzumab) and biosimilars
Herceptin Hylecta (trastuzumab/hyaluronidase-oysk)
Avastin (bevacizumab) and biosimilars
Rituxan (rituximab) and biosimilars
Rituxan Hycela (rituximab/hyaluronidase)
Perjeta (pertuzumab)
Phesgo (pertuzumab/trastuzumab/hyaluronidase-zzxf)
Proteasome Inhibitor
Velcade (bortezomib)
Immunotherapy
Opdivo (nivolumab)
Yervoy (ipilimumab)
Tecentriq (atezolizumab)
Keytruda (pembrolizumab)
Libtayo (cempilimab)
Imfinzi (durvalumab)
Bavencio (avelumab)

Figure 4. Additional considerations for oncology care at home¹¹⁻¹³

Telemedicine	Remote Patient Monitoring	Safety of Home Administration of Oncology Care
<ul style="list-style-type: none"> Patients with cancer frequently reported high levels of satisfaction with the use of telemedicine for provider visits during COVID-19 pandemic. There is opportunity to refine the optimal frequency of in-person visits combined with telemedicine visits and to improve telemedicine adoption among digitally disadvantaged patients. 	<ul style="list-style-type: none"> Improvement in overall survival has been demonstrated in patients receiving chemotherapy and utilizing electronic patient-reported outcomes (PRO), allowing for triage of symptom management in the home. Utilizing PRO monitoring for symptom management has also been associated with decreased healthcare resource utilization during the COVID-19 pandemic. 	<ul style="list-style-type: none"> Integration of all health care providers and team members in the delivery of care Closed-loop communication amongst team members Compliance with compounding standards and regulations, including hazardous drugs if needed Advanced training or certifications for specialized care if needed Policies and procedures to reduce risk of error and family exposure to treatments

Discussion

- The COVID-19 pandemic created ideal conditions to propel a major shift in the site of health care into the patient's home. This represents a significant advancement in delivering care for all patients, particularly for patients with cancer.
- The American Nurses Association (ANA) has stated that the US is undergoing a nursing shortage. This presents an ongoing challenge to treatment in the home as the ratio of patient to home health agency nurse is commonly 1:1 when administering treatments and care within the patient's home, compared to larger patient to nurse ratios in other treatment settings.
- The injected drug Phesgo, administered by a healthcare professional, and the oral formulations Inqovi and Orgovyx, have been approved for use in the home by the US Food and Drug Administration. These approvals supported and aligned with the current shift in the site of care into the patient's home.
- Patient feedback has been overwhelmingly positive for bringing the site of care into their home.
 - The convenience, reduced risk of exposure to COVID-19, decreased cost, decreased capabilities to administer in a hospital or infusion center, and patient preference are the most common rationales cited for care in the home.
- Several payers expanded their SOC policies to include injections and infusion medications for treatment of cancer to be administered in the home.
- Telemedicine for provider visits and remote patient monitoring for symptom management were additional aspects of patients' oncology care that shifted to the home and have the potential to persist as opportunities to deliver cancer care. Additionally, there are several guiding principles for providing oncology care in the home safely.

Disclosures

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References

- Cancer statistics. National Cancer Institute. <https://tinyurl.com/4ytz8vaf>. Accessed July 27, 2021.
- Fronstin, Paul, et al. Location, Location, Location: Cost Differences for Oncology Medicines Based on Site of Treatment. EBRI Issue Brief, no. 498 (Employee Benefit Research Institute, January 16, 2020).
- Hopson S, et al. Does site-of-care for Oncology INFUSION therapy Influence TREATMENT patterns, cost, and quality in the United States? *Journal of Medical Economics*. 2017;21(2):152-162. doi:10.1080/13696998.2017.1384736
- Amy I. Laughlin MD, et al. Accelerating the delivery of cancer care at home during the covid-19 pandemic. *NEJM Catalyst Innovations in Care Delivery*. <https://tinyurl.com/e8f343z3>. Accessed August 2, 2021.
- What types of home care services are available? American Cancer Society <https://tinyurl.com/22ye5zxf>. Accessed August 2, 2021.
- American Nurses Association. <https://www.nursingworld.org/practice-policy/workforce/> Accessed August 2, 2021.
- The 2021 American Nursing Shortage: A Data Study. <https://www.usa.edu/blog/nursing-shortage/> Accessed August 2, 2021.
- FDA approves breast cancer treatment that can be administered at home by health care professional. U.S. Food and Drug Administration. <https://tinyurl.com/eb2zes25>. Accessed August 2, 2021.
- FDA approves new therapy for Myelodysplastic SYNDROMES (MDS) that can be taken at home. U.S. Food and Drug Administration. <https://tinyurl.com/36echnyr>. Accessed August 2, 2021.
- FDA approves first oral hormone therapy for treating advanced prostate cancer. U.S. Food and Drug Administration. <https://tinyurl.com/dmh8s44j>. Accessed September 29, 2021.
- Maximizing home time for persons with cancer. Banerjee R, et al. *JCO Oncology Practice*. 17(9):513-516.
- Randomized trial of remote cancer symptom monitoring during COVID-19: Impact on symptoms, QOL, and unplanned health care utilization. Mooney K, et al. *J Clin Oncol*. 39(suppl 15); abstr 12000.
- ASHP Guidelines on evaluating and using home or alternate-site infusion service providers. <https://tinyurl.com/89dmeqb5>. Accessed September 29, 2021.