Safety Outcomes in Patients Receiving Oncology Infusions via Home Infusion and Hospital-Based Outpatient Infusion Centers

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BACKGROUND

- Site of care (SOC) optimization is appealing to third-party payers because it…
  - Improves access to therapy
  - Increases patient satisfaction
  - Allows patients to transition from higher-cost to lower-cost settings without compromising quality of care.
- Administration of specialty drugs in physician offices or home settings can improve care and provide cost-savings of 33 - 52%.
- Oncology patients receiving home-based therapies have high satisfaction rates and report improved physical & mental well-being, without an increased risk of adverse drug reactions.

PURPOSE

To compare safety outcomes in patients receiving oncology therapy through home infusion and outpatient hospital infusion centers, including:

- Incidence of **infusion-related** reactions
- **Patient** Demographics
- **Rate of hospital admission/readmission**
- **Rate of infection**

REFERENCES

1. UnitedHealthcare Commercial Utilization Review Guideline. Specialty medication administration-site of care review guidelines. Provider Administered Drugs – Site of Care – Commercial Utilization Review Guideline (uhcprovider.com) Published 2018. Accessed September 19, 2022.
2. UnitedHealth Group. Reducing specialty drug costs. September 2019. https://www.unitedhealthgroup.com/newsroom/posts/2019- 09-09-reducing-specialty-drug-costs.html.
3. Fronstin P, Roebuck C, Stuart B. Cost differences for oncology medicines based on site of treatment. Employee Benefit Research Institute. January 2020. No. 498. https://www.ebri.org/docs/default-source/ebri-issuebrief/ebri_ib_498_chemocosts-16jan20.pdf?sfvrsn=9d073d2f_6.

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METHODS

Study Design: Single-center, retrospective cohort study; chart review and EMR data

INCLUSION CRITERIA

- Adult patients (18 years or older)
- Received advanced oncology infusions
- Infusions occurred January 1, 2020 – December 31, 2022
- SOC included Fairview Home Infusion or an M Health Fairview hospital-based outpatient infusion center

29 patients; 555 infusions seen within Home Infusion

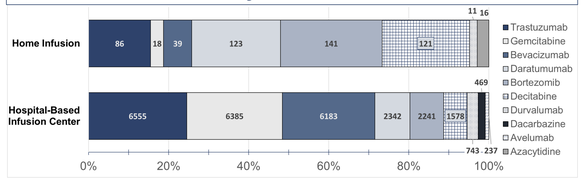
1,412 patients; 26,733 infusions seen within Hospital-Based Outpatient Center

ADVANCED ONCOLOGY INFUSIONS:

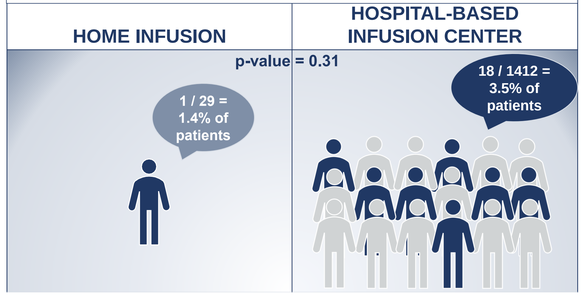
- **Avastin (Bevacizumab)**
- **Darzalex (Daratumumab)**
- **Gemzar (Gemcitabine)**
- **Imfinzi (Durvalumab)**
- **Vidaza (Azacytidine)**
- **Dacarbazine (DTIC)**
- **Dacogen (Decitabine)**
- **Herceptin (Trastuzumab)**
- **Velcade (Bortezomib)**
- **Bacencio (Avelumab)**

PRELIMINARY RESULTS

Medications infused by SOC



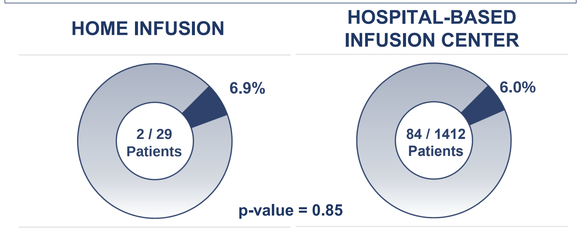
Infusion-related reactions by SOC



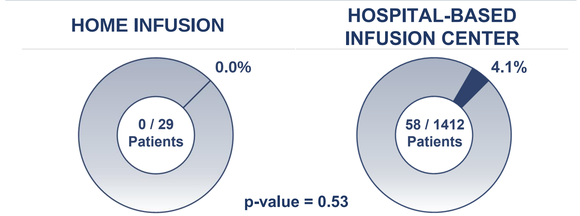
Infusion-related reaction definitions:

- **Mild: fever, sweats, chills, rigors, skin rash, and/or mild shortness of breath**
- **Severe: hives, severe facial swelling, low blood pressure, and/or inability to breath**

ED or Hospital Admission within 48-hours Post-Infusion by SOC



Patients with COVID, RSV, or Influenza infections Occurring within 14-days of infusions by SOC



DISCUSSION

In adult patients receiving advanced oncology infusion, no statistically significant difference was found between home infusion and hospital-based outpatient infusion center regarding:

- Infusion-related reactions,
- ED or Hospital admissions within 48 hours post-infusion, or
- COVID, RSV, or Influenza infections following infusion.

This study indicates that home infusion may be a safe alternative to hospital-based infusion center care, especially for vulnerable patients such as those with cancer.

Study limitations include a small home infusion population size, differences in reporting between SOC, and the inability to determine results of at-home COVID tests.

CONCLUSION

- There is minimal research evaluating safety outcomes of oncology infusions within home infusion.
- This study found similar safety profiles between home infusion and hospital-based infusion centers, based on infusion-related reactions, ED or Hospital admissions within 48-hours post-infusion, and COVID, RSV, or Influenza infections following infusion.
- Larger, multicenter studies of safety outcomes, patient satisfaction, and total cost of care among patients receiving advanced oncology therapies by SOC are needed.
- The anticipated societal benefit of this study is to promote the utility of home infusion as a mechanism to lower healthcare cost and improve access to therapy without compromising quality of care.

DISCLOSURES

The authors have no conflicts of interest to disclose.

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