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# Evaluation of Restricted Medications Administered Within the Inpatient Setting

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## Background

- Changes to reimbursement models have shifted how health systems provide patient care
- Commercial payors are driving health care services to lower cost sites of care (i.e. non-hospital based infusion centers), including services such as medication administration.
- To ensure medication administration occurs within the most cost-effective setting, a list of restricted medications was developed at Lehigh Valley Health Network.
  - Medications were included if high-cost, used for management of chronic disease states, or targeted for outpatient administration
  - Three-step approval process (provider contact, pharmacy administrator approval, pharmacist documentation)
  - List has not been formally reviewed or revised since 2017
- Goal of this quality improvement project was to assess the inpatient use of restricted medications and identify changes that should be made or opportunities for education to streamline the approval process while mitigating effects of changing sites of care and reimbursement.

## Methods

- Retrospective review of electronic medical records of inpatient administrations of restricted medications between July 1, 2018 and June 30, 2020 at LVH–Cedar Crest and LVH–Muhlenberg.
- Evaluations performed:
  - Calculated total number of doses administered per medication per fiscal year (July 1–June 30)
  - Stratified usage by drug and patient location and identified significant trends in prescribing
  - Quantified documentation for usage approval and assessed for consistency

## Results

**Table 1. Evaluation of Doses Administered by Fiscal Year**

Restricted medication classification	2018-2019 (N=56)* n (%)	2019-2020 (N=51)* n (%)
Restricted medication usage		
Bendamustine	7 (12.5)	7 (13.7)
Leuprolide	13 (23.2)	4 (7.8)
Tocilizumab	12 (21.4)	1 (2.0)
Vedolizumab	8 (14.3)	14 (27.5)
Patient-supplied medication	7 (12.5)	8 (15.7)
Rationale for inpatient administration		
Administration logistics	50 (89.3)	29 (56.9)
Medically necessary	16 (28.6)^	35 (68.6)^

\*Administrations by hospital campus (2018-2019: Cedar Crest n=54, Muhlenberg n=2; 2019-2020: Cedar Crest n=39, Muhlenberg n=12)

^Medically necessary doses (2018-2019: 14 initial doses; 2 maintenance doses; 2019-2020: 32 initial doses; 3 maintenance doses)

## Restricted Medication Administration by Hospital Service

Figure 1: 2018–2019

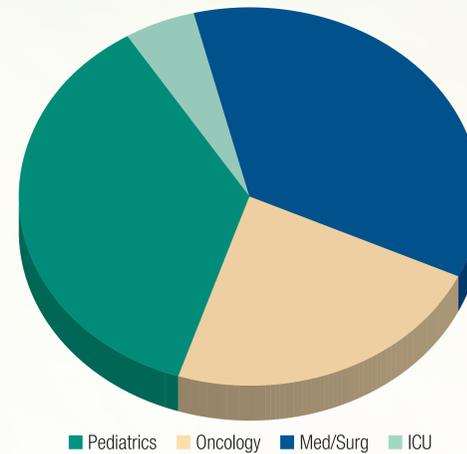
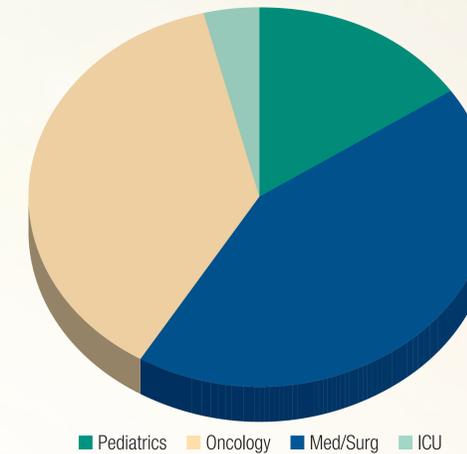


Figure 2: 2019–2020



## Documentation for Restricted Medication Use

Figure 3: 2018–2019

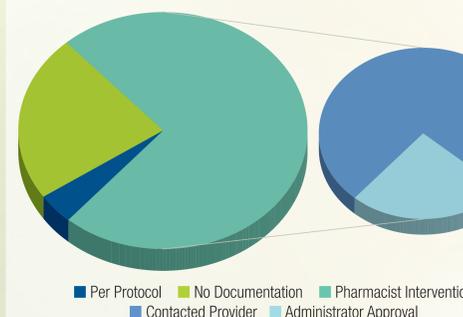
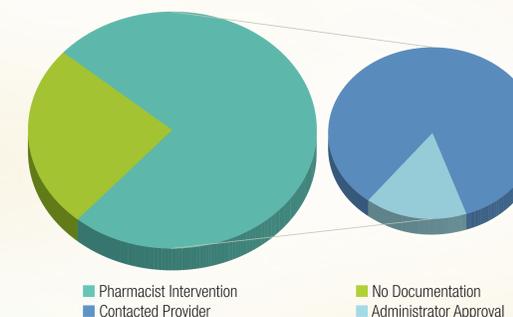


Figure 4: 2019–2020



## Conclusions

- Administration of patient's own medications was facilitated across fiscal years
- More restricted medications ordered by oncology department and administered for medical treatment of acute conditions in 2019-2020 vs 2018-2019
- Failure to document intervention or communication with providers regarding restricted medication administration occurred more than 1/3 of the time
  - Documentation disparity varied by hospital campus

## REFERENCES

- <sup>1</sup>Navigating and Optimizing Infusion Services when Hospital-based Care is Not an Option. American Society of Health-System Pharmacists – Pharmacy Practice Leaders. 2019. (Date accessed: 13 Aug 2020) Available from: [https://www.ashp.org/-/media/assets/practice-management/docs/Site-of-Care-Challenges-81919.ashx?la=en&hash=6966CB46FB38B8B61DA54A9AFE2B163C9E0886C8&utm\\_source=SSPPCMARCH2020&utm\\_medium=email&hash=6966CB46FB38B8B61DA54A9AFE2B163C9E0886C8](https://www.ashp.org/-/media/assets/practice-management/docs/Site-of-Care-Challenges-81919.ashx?la=en&hash=6966CB46FB38B8B61DA54A9AFE2B163C9E0886C8&utm_source=SSPPCMARCH2020&utm_medium=email&hash=6966CB46FB38B8B61DA54A9AFE2B163C9E0886C8)
- <sup>2</sup>Impact of Site of Care Trends: An Introduction and Strategy to Identify the Issues. American Society of Health-System Pharmacists – Pharmacy Practice Leaders. 2018. (Date accessed: 24 Aug 2020) Available from: <https://www.ashp.org/-/media/assets/pharmacy-practice/resource-centers/practice-management/Impact-to-site-of-care-trends.ashx?la=en&hash=D3C9051217C7A50ED305C7EF77FBFCDE0A9D40B7>

## DISCLOSURE STATEMENTS

Authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation:

Alexis Nicholson, Janine Barnaby, Arun Mancheril and Kristin Held Wheatley each have nothing to disclose