

# ASHP BEST PRACTICES AWARD

## Pharmacist-Led Program Leads to Safe and Efficient Outpatient Initiation of AML Venetoclax-Based Regimen

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Authors have nothing relevant to disclose.



### Introduction

#### Health-Care Facility

- 803 bed facility, serving more than 37,000 patients per year; not-for profit medical system
  - North Carolina Memorial Hospital
  - North Carolina Children's Hospital
  - North Carolina Neurosciences Hospital
  - North Carolina Woman's Hospital
  - North Carolina Cancer Hospital
- Pharmacist involvement in patient care:
  - Inpatient medicine, oncology, surgical, and pediatric services
  - Outpatient clinics as Clinical Pharmacist Practitioners (CPPs)
  - Emergency Medicine
  - Retail/Outpatient Pharmacies
  - URAC-accredited Specialty Pharmacy

#### Background

- Venetoclax, an oral BCL2 inhibitor, is approved in combination with a hypomethylating agent for elderly/unfit acute myeloid leukemia (AML) patients
- This regimen is often given inpatient due to risk of tumor lysis syndrome (TLS) requiring:
  - Cytoreduction with hydroxyurea
  - Uric acid lowering therapies (ie allopurinol)
  - Intravenous hydration
  - Dosing ramp-up
  - Drug interaction assessment/modifications
  - Close lab monitoring
- Therapy should be initiated rapidly due to acute nature of disease, and medication access to venetoclax poses a barrier to outpatient initiation

#### Purpose

- Describe and assess a pharmacist-led program used to initiate venetoclax-based AML regimen in the outpatient setting:
  - Prevent, monitor, and manage TLS outpatient
  - Provide rapid turnaround of venetoclax access to prevent treatment delays
  - Reduce hospitalizations and associated costs to the health system
  - Maintain response rates as reported in real world data

### Description of the Program

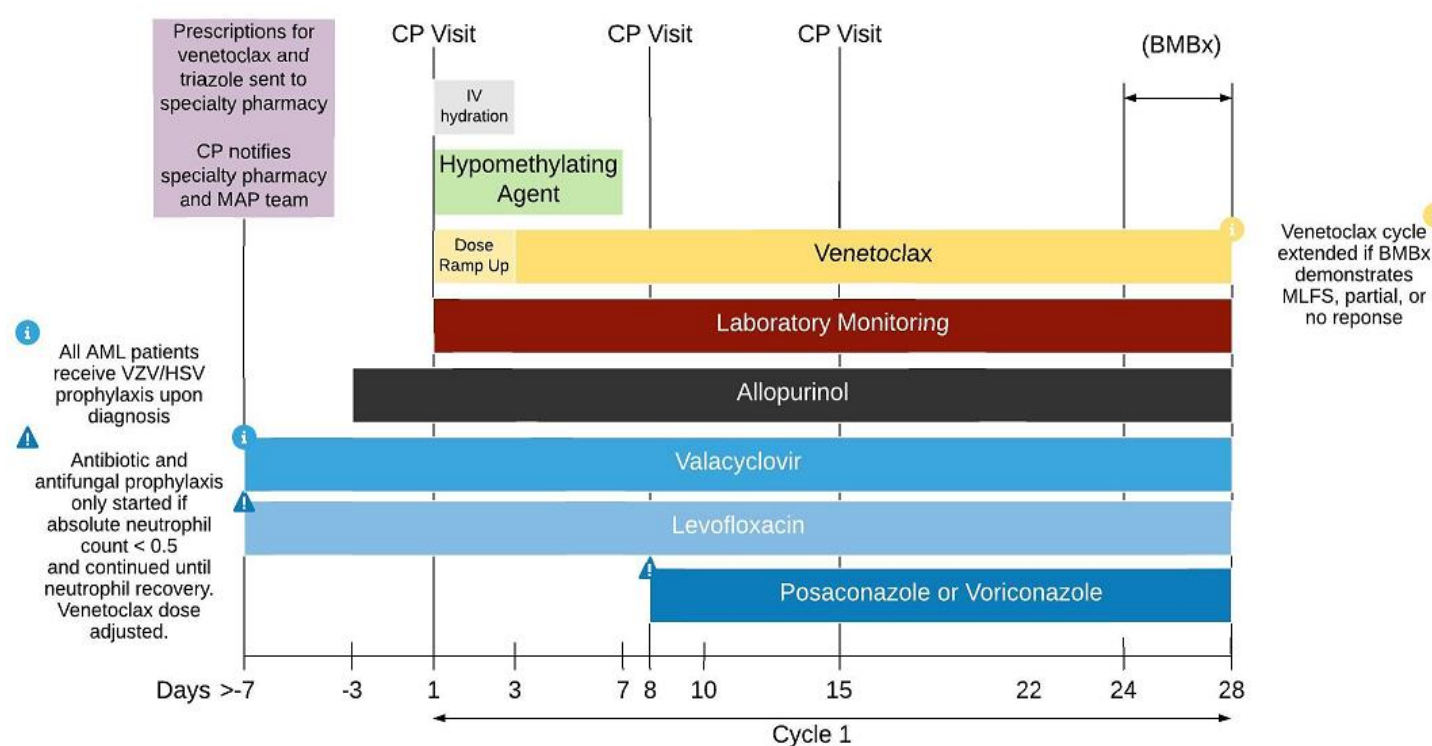
#### Program Team Members

- Leukemia Clinical Pharmacist
- Medication Assistance Program (MAP) specialist
- Integrated specialty pharmacy
- Interdisciplinary team



#### Workflow

- Upon treatment decision, the clinical pharmacist assists in chemotherapy and supportive care orders
- The MAP specialist and the integrated specialty pharmacy support prior authorization and copay assistance needs prior to dispensing/delivering to patient
- The clinical pharmacist sees the patient at structured time points during Cycle 1 to provide education, monitoring, and management of symptoms and infection prevention



### Experience with the Program

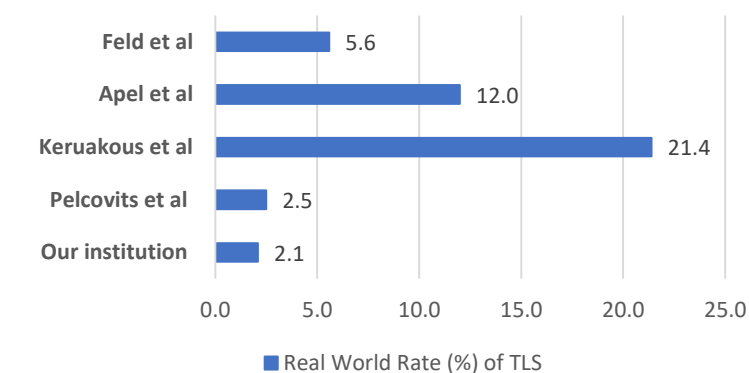
- Data collected April 1, 2019 to June 30, 2020 (15 months)
- Total 82 AML-venetoclax patients included in the study, with 47 (57%) started outpatient

Endpoint	Outpatients (n = 47)
No TLS hospitalizations within 7 days, n (%)	46 (97.9)
Time to drug access, median (range), days	3 (0-37)
Hospitalization within 7 days for any reason, n (%)	8 (17)
Achieved < 5% blasts by end of cycle 1 or 2	
First line treatment	14/23 (60.9%)
Relapsed/refractory	12/23 (52%)

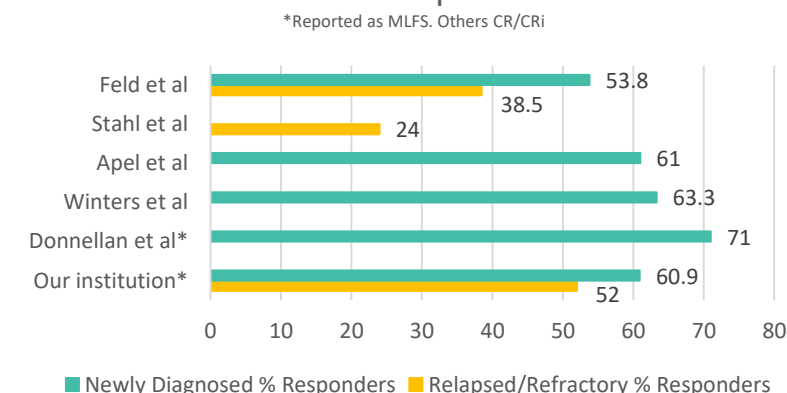
Estimated daily AML inpatient cost	\$3,300/day
Estimated hospital days saved (no hospitalizations in first week, n = 39)	273 days
Estimated hospitalization cost avoidance over study period	\$900,900
Estimated cost of week 1 of venetoclax (AWP)	\$2,969
Estimated drug cost avoidance (n=39) over study period	\$115,791
Total estimated cost avoidance over study period	\$1,016,691
Approximate medication access obtained for patients (n=47)	\$2,130,645

### Experience with the Program (continued)

#### Real World Rate of TLS



#### Real World Response Rates



### Discussion/Conclusion

- A pharmacy-led venetoclax outpatient initiation protocol has proven successful in prevention of TLS and associated hospitalizations
- With the support from the MAP specialist and integrated specialty pharmacy, treatment was able to be initiated outpatient while minimizing delays.
- The program avoided over a million dollars in cost to the health system over a 15 month time period.

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### Acknowledgements

Bianka Patel, PharmD, BCOP; Shannon Palmer, PharmD; Anand Patel, PharmD; Christopher Wang, PharmD; Davon Townsend Howell, PharmD; Sonali Acharya, PharmD; Paige Roop, CPhT; Delores Dykeman, CPhT; Shanybel Santer Torres, CPhT