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### Central Venous Catheter-Associated Complications in Pediatric Patients with Acute Myeloid Leukemia

J Allyson Hays  
*Children's Mercy Hospital*

Maggie Ziegler  
*University of Kansas Medical Center*

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## INTRODUCTION

- Central venous catheters (CVCs) are a mainstay of pediatric cancer treatment<sup>1</sup>
- CVC risks include catheter-associated bloodstream infections (CLABSIs) and local-site infections<sup>1</sup>
- Analyzing complication rates may inform decisions about CVC choice

## METHODS

- Retrospective chart review identified patients diagnosed with acute myeloid leukemia at CMH from 2010 to 2022
- Demographic data, CVC placement details, and CVC complications were collected
- One tailed t-test and ANOVA compared catheter complication rates (Fig. 1, 2)
- Chi Square compared catheter type with removal reason (Fig. 3)

# Central Venous Catheter-Associated Complications in Pediatric Patients with Acute Myeloid Leukemia

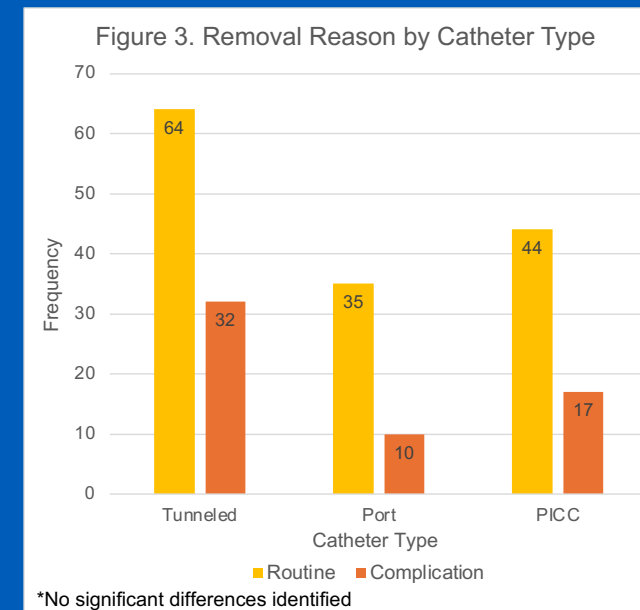
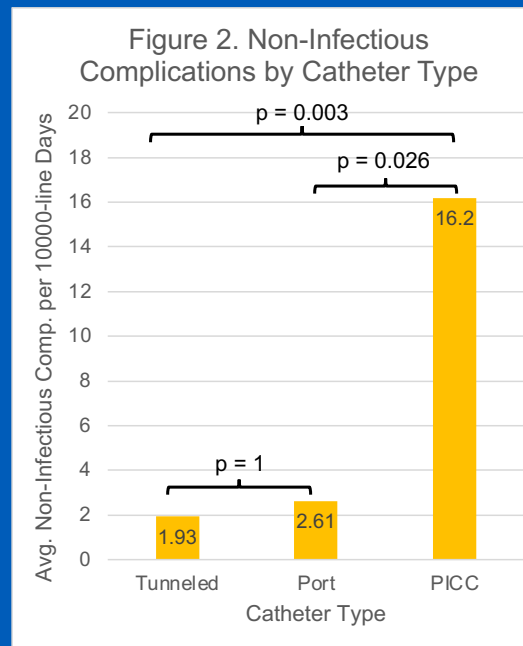
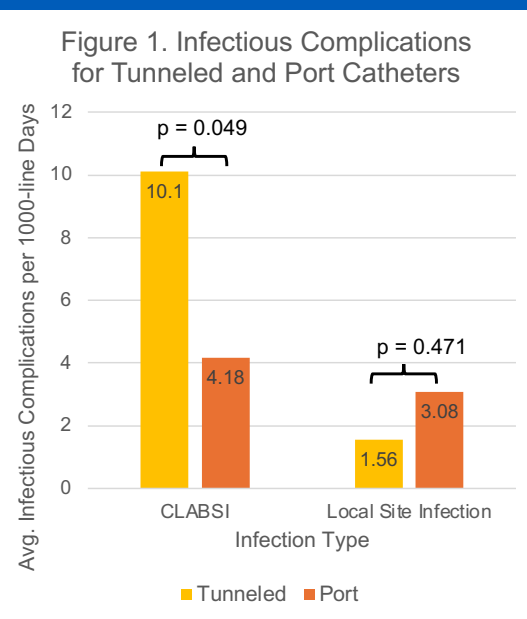


Table 1. Acute Myeloid Leukemia Subtypes Identified

Diagnosis	Frequency
Acute monocytic leukemia	9
Acute megakaryoblastic leukemia	9
Acute promyelocytic leukemia	6
Therapy-related myeloid neoplasm	4
Myeloid leukemia associated with Down syndrome	12
Acute myeloid leukemia of various specification	50

Maggie Ziegler; J. Allyson Hays, MD  
Children's Mercy Kansas City

## RESULTS

- 90 patients identified, average of 2.42 catheters per patient
- 6 subtypes (Table 1)
- 42 male, 48 female
- Average age at diagnosis: 8.22 years (range: 5d – 19.5yr)
- 218 catheters placed (100 tunneled, 48 port, 62 PICC, 8 other)
- Average line-days per catheter: 138.84 (tunneled=155.89, port=255.38, PICC=33.24, other=45.13)
- 8 catheters removed from analysis due to co-infection with another catheter

## DISCUSSION

- The choice of tunneled catheter increased the risk of CLABSI but not local-site infections
- The choice of PICCs increased the risk of non-infectious complications
- No effect of catheter type on removal reason