

# Choice of Drain Systems and Associated Peritonitis Rates in Automated Peritoneal Dialysis Patients

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# Disclosure

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- **This analysis was supported DaVita Clinical Research<sup>®</sup> and was conducted by DaVita Clinical Research using the DaVita HealthCare Partners<sup>®</sup> Clinical Data Warehouse.**

# Introduction

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**Is there a higher risk of peritonitis with the use of drain lines or drain bags?**

- **65% of large dialysis organization (LDO) patients use drain bags**
- **Objective: compare peritonitis risk between use of drain lines vs. drain bags.**

# Methods

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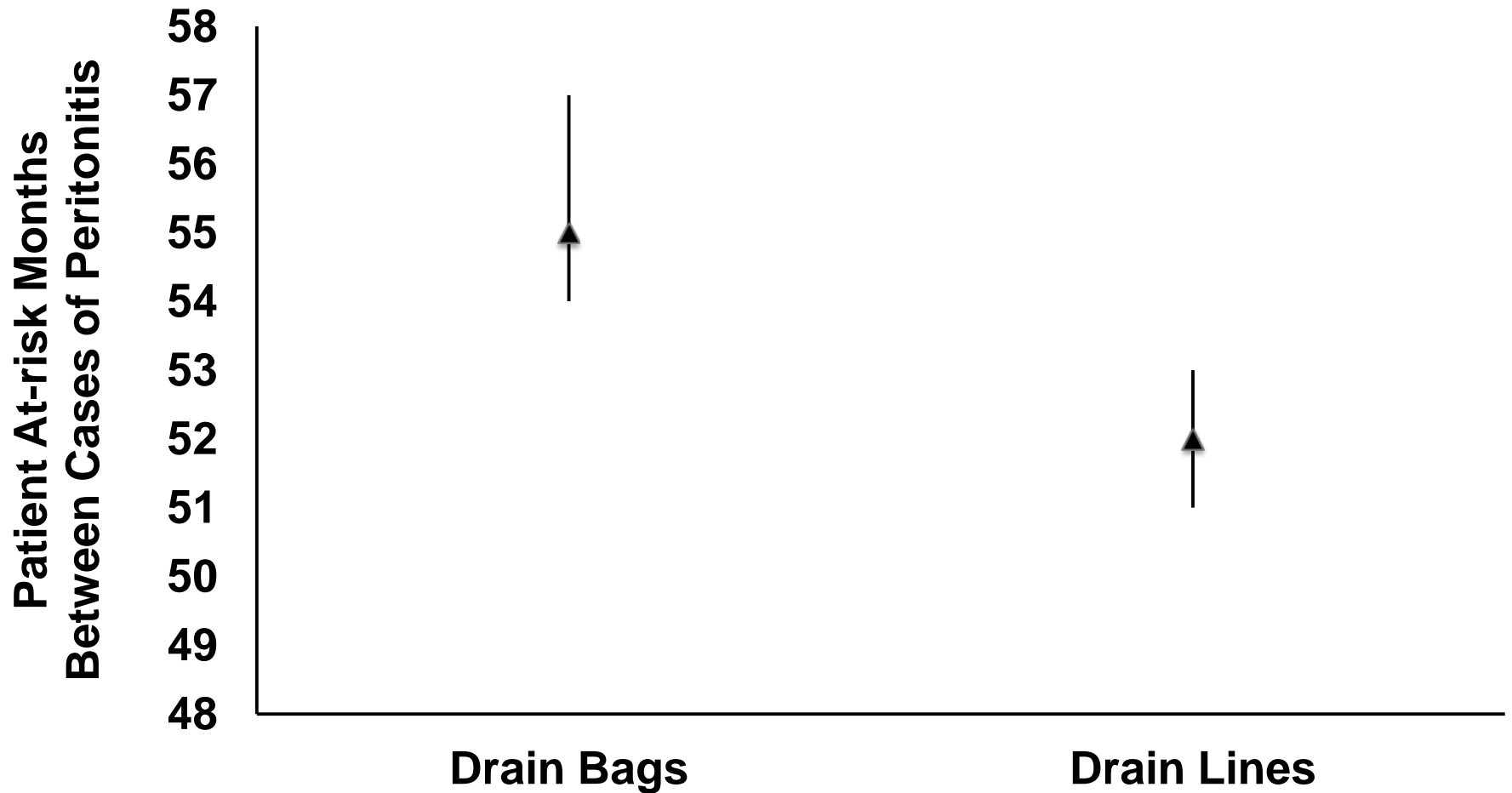
- **Standard algorithm for peritonitis surveillance<sup>1</sup>**
- **All automated peritoneal dialysis (APD) patients Jan 2011 through Jun 2013**
  - Only patients using 1 national supplier (~98%)
  - Patients ordering drain bags at least 2 out of 3 months classified as a drain bag patient, and patients consistently not ordering drain bags classified as a drain line patient
- **Matched by patient identifier to drain system**
  - Supplier ordering data
  - Removed patients with no clear system match
  - Final n = 15,532 patients

<sup>1</sup>Njord, et al. A Standardized Algorithm for Peritonitis Surveillance. In: Proceedings of the 34<sup>th</sup> Annual Dialysis Conference. Room 412, Feb 10, 2014. 9:00 AM

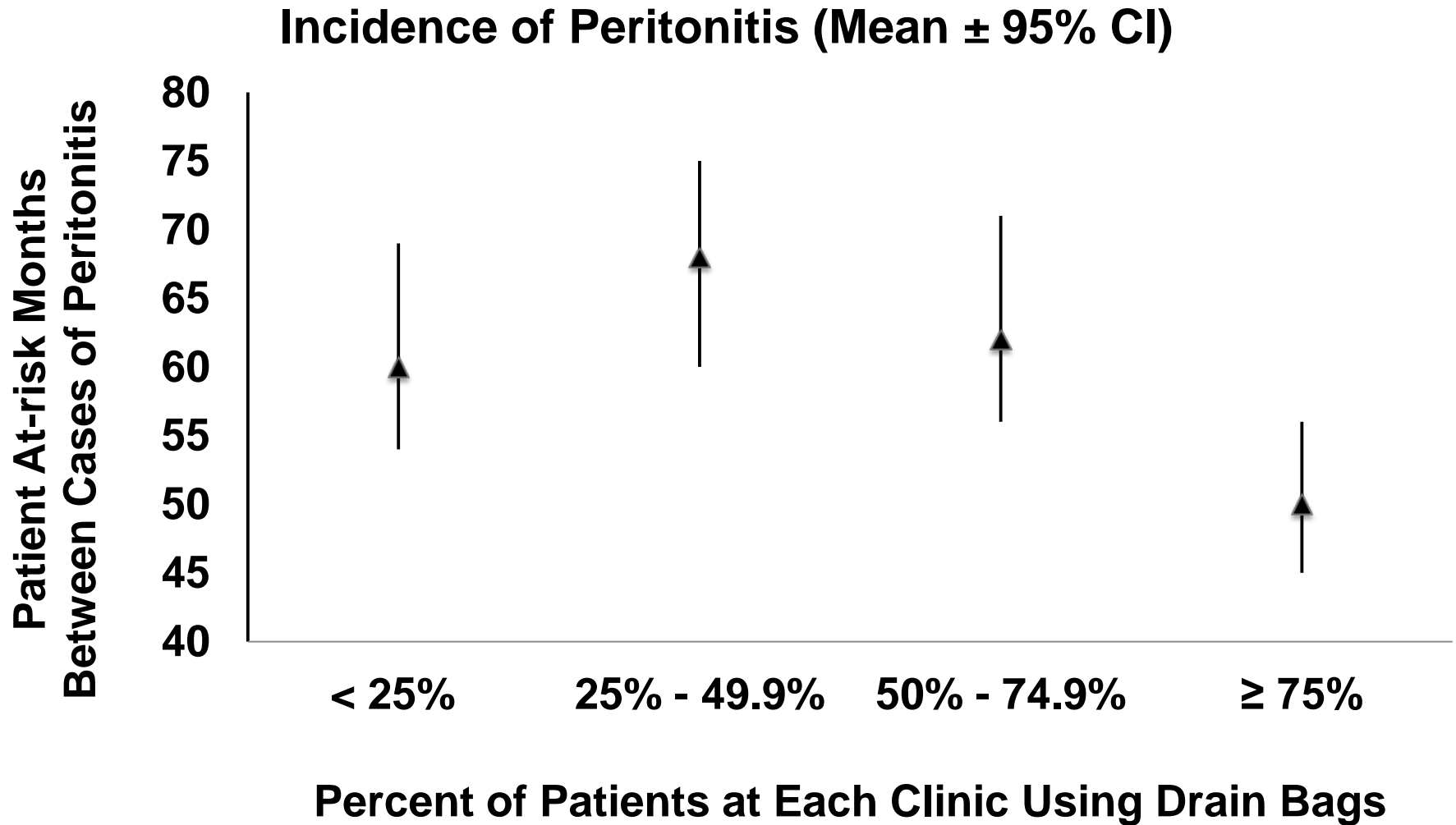
# Results: Patient by Patient

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Incidence of Peritonitis (Mean  $\pm$  CI)



# Results: Aggregated per Clinic



# Discussion

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- **Daily drain bag use increases cost per day**
  - Positive or no clinical impact
  - Positive patient experience impact
- **Drain bags have a negative patient exp. impact**
  - Lifting and carrying up to 33 lbs every morning
  - Forces interaction with spent fluid on a daily basis
  - Additional storage space required
  - Additional daily connection
- **Drain bags have negative environmental impact**
  - LDO generates 8-tons of plastic waste per year



# Conclusion

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- **There is no evidence of a clinically significant higher peritonitis risk based on drain system choice**
- **Inference: Consider moving as many patients as is clinically feasible from drain bags to drain lines**
  - Lower cost of care
  - Improved patient experience
  - Environmentally responsible



# Questions and Answers