

# DEsign and conDUCt of dose Escalation trials (DEDUCE)

A unified resource for clinical investigators and statisticians to design and conduct more efficient and accurate phase 1 trials.

### Overview

The DEDUCE platform is an interactive, web-based resource to design and conduct phase 1 dose escalation trials using rule-based and Bayesian adaptive designs. Our goal in developing this application is to raise awareness, educate, and provide open access to investigators for alternative, improved methods and tools to design and conduct phase 1 dose escalation trials.

#### **DEDUCE Modules:**

## DESIGN YOUR TRIAL

Users can specify and compare the operating characteristics for hypothetical phase 1 designs through trial simulations, and select an optimal design for the needs of the trial.

## CONDUCT YOUR TRIAL

Users can implement the adaptive trial, and determine the recommended dose level each time a new patient enrolls.

### **Available Designs:**

- Continual Reassessment Method (CRM) [O'Quigley et al. Biometrics, 1990]
- TARGETed-Agent Continual Reassessment Method (TARGET-CRM)
- 3+3 [Storer. Biometrics, 1989]

#### **Key Features of DEDUCE:**

- Permits simultaneous comparison of multiple trial designs for the same set of simulation parameters
- Dynamically generates a written report summarizing simulation results







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DEDUCE

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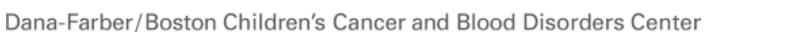
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## **DEDUCE Leadership:**

Dana-Farber/Boston Children's Cancer and Blood Disorders Center

Clement Ma, PhD

Wendy B. London, PhD

## **Development Team:**

**Northwestern Mutual** 

Judy Berdan

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Danielle Pankey

Susan Stegman, MD

## **Contact:**

For Assistance Please Contact: Drs. Clement Ma and Wendy B. London

## Citation:

To site DEDUCE please use: Insert link to citation

## **Acknowledgements:**

We would like to thank the Northwestern Mutual Tech for Good team for their pro-bono development, design, and project management support for the DEDUCE platform. We would also like to thank our test users, Drs. Steven G. DuBois, Karen D. Wright, and David S. Shulman for their helpful feedback.

# References:

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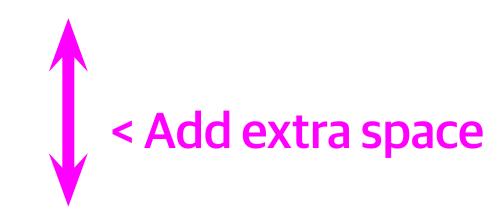
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