

## 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:

#### TRIAL DESIGN

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.

#### TRIAL CONDUCT

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

### Available Designs:

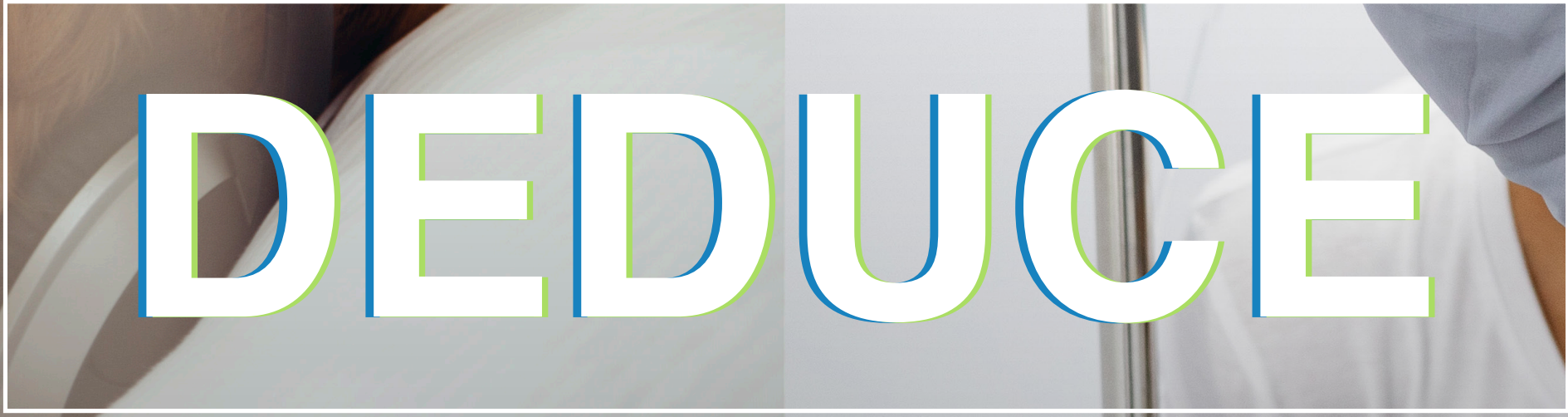
- Continual Reassessment Method (CRM) [[O'Quigley et al. Biometrics, 1990](#)]
- TARGETed-Agent Continual Reassessment Method (TARGET-CRM)
- 3+3 [[Storer. Biometrics, 1989](#)]

### 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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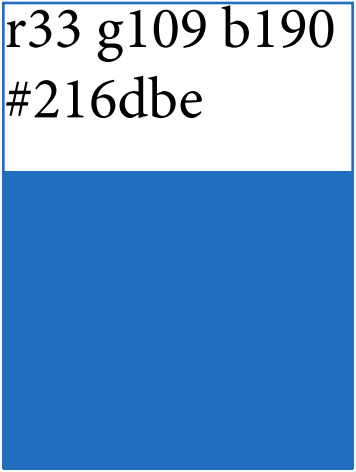


Better trials for better answers.

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DEDUCE Modules:

TRIAL DESIGN < remove bullets/unbold/all cap text

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



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DEDUCE Leadership:

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

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Northwestern Mutual

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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:

Storer BE. Design and Analysis of Phase I Clinical Trials. Biometrics. 1989;45(3):925-37.

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