

THE MICROBIOTA-BASED DRUG RBX2660 IS EFFICACIOUS AND SAFE IN PATIENTS WITH RECURRENT *CLOSTRIDIUM DIFFICILE* INFECTIONS: RESULTS FROM 2 CONTROLLED CLINICAL TRIALS

Robert Orenstein DO¹, Erik Dubberke MD MSPH², Sahil Khanna MBBS⁴, Gail Hecht MD⁴, Herbert Dupont MD⁵, Christine Lee MD⁶, Ken Blount PhD⁷

¹Division of Infectious Diseases, Mayo Clinic in Arizona, Phoenix, AZ, USA; ²Department of Internal Medicine, Washington University of St. Louis, St. Louis, MO; ³Division of Gastroenterology and Hepatology Mayo Clinic, Rochester, MN, USA; ⁴Division of Gastroenterology and Nutrition, Loyola University Medical Center, Chicago, IL, USA; ⁵University of Texas Health Science Center; ⁶Hamilton Regional Laboratory Medicine Program, Department of Pathology and Molecular Medicine, McMaster University, Hamilton, ON, Canada, Vancouver Island Health Authority, Victoria, Department of Pathology and Laboratory Medicine, University of British Columbia, BC, Canada; ⁷Rebiotix, Inc. Roseville, MN

BACKGROUND

- Effective treatment options for recurrent *C. difficile* infection (rCDI) are limited
- High recurrence rates are associated with current standard of care
- Microbiota-based therapies are being developed and evaluated in clinical trials
- Here we collectively present results from two Phase 2 controlled trials to evaluate the safety and efficacy of RBX2660

RBX2660
Microbiota-based drug manufactured from live human-derived microbes using standardized processes and controls.

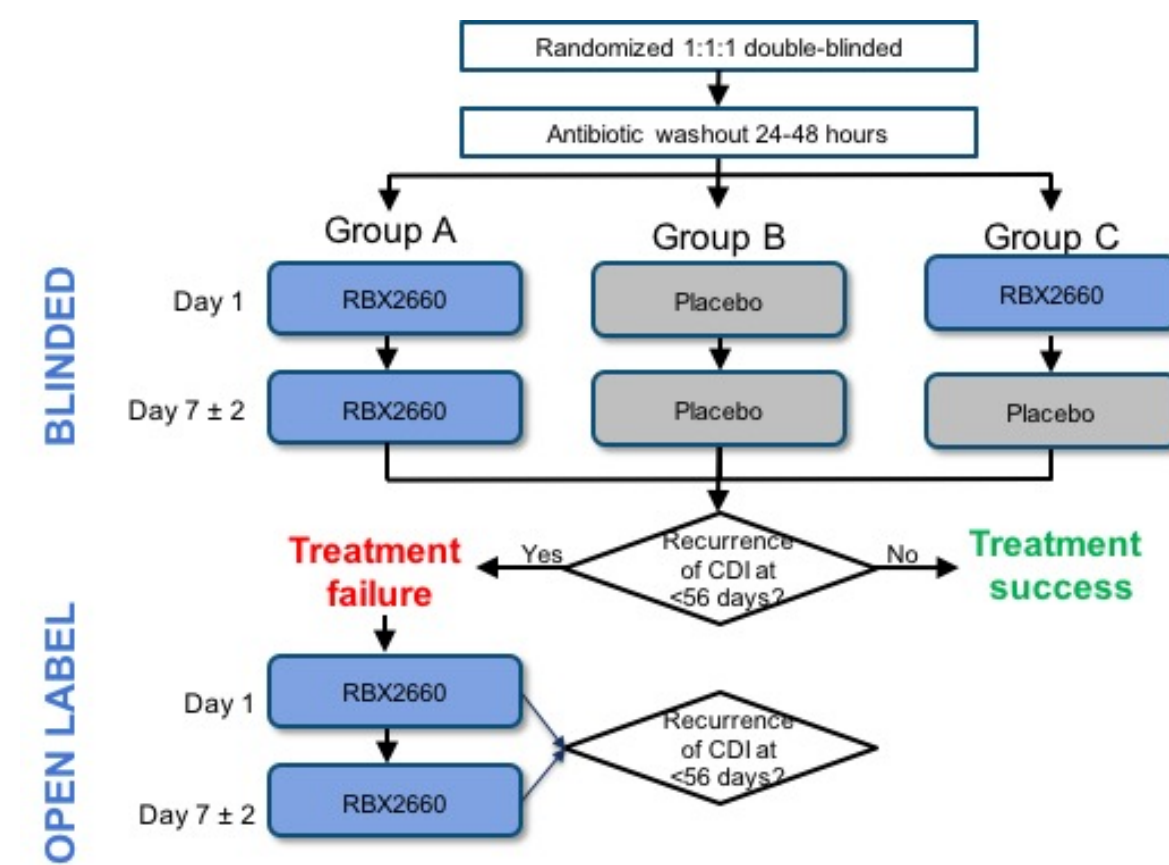
METHODS (common to both trials)

- Inclusion criteria: >18 years old with documentation of either 2 recurrences after a primary episode and has completed at least two rounds of standard-of-care oral antibiotic therapy, or at least 2 episodes of severe CDI resulting in hospitalization; a positive stool test for the presence of toxigenic *C. difficile* within 60 days prior to enrollment
- Exclusion criteria: History of irritable bowel disease (ulcerative colitis, Crohn's disease or microscopic colitis); irritable bowel syndrome; chronic diarrhea; celiac disease; colostomy; evidence of active colitis; known exposure to antibiotics within 6 months after study enrollment; compromised immune system (white blood cell count <1000 cells/ μ L)
- Antibiotics were discontinued 24-48 hours prior to the first enema
- Safety was assessed in clinic at 1, 4, and 8 weeks and via telephone at 2, 3, between 5-7 weeks, and at 3, 6, 12 and 24 months.
- Success was defined as the absence of CDI at 8 weeks following completion of the last treatment. Patients were classified as a treatment failure if all four (4) of the following criteria were met: recurrence of diarrhea less than 8 weeks after administration of the last assigned study enema, a positive laboratory diagnosis of *C. difficile* as conducted and reported by the study investigator, a need for retreatment for CDI, and no other cause for diarrhea

RBX2660 IS EFFICACIOUS & SAFE relative to placebo controls

A Phase 2B randomized, double-blind placebo controlled trial (NCT02299570)

TRIAL DESIGN



DEMOGRAPHICS

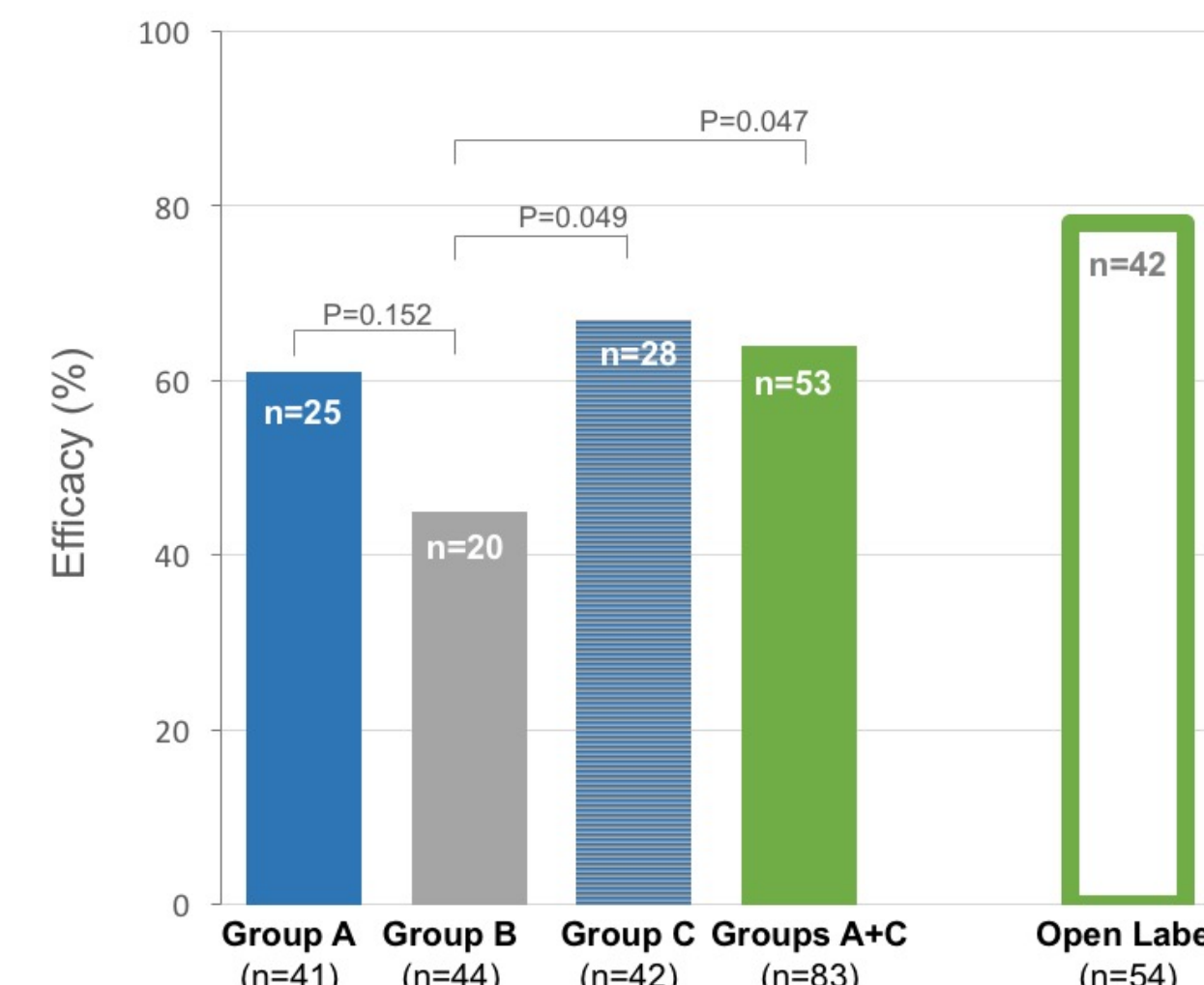
CHARACTERISTIC	GROUP A 2 Doses RBX2660	GROUP B 2 Doses Placebo	GROUP C 1 Dose RBX2660+1 Dose Placebo
n	41	44	42
Mean age – years (range)	62.8 (24-89)	58.8 (19-92)	61.5 (18-88)
Female sex - n (%)	25 (61)	30 (68)	24 (57)
Race-White – n (%)	39 (95)	42 (96)	40 (95)
Antibiotic used at screening – n(%)			
Vancomycin	38 (93)	40 (91)	37 (88)
Fidaxomicin	1 (2)	2 (5)	2 (5)
Metronidazole	2 (5)	2 (5)	2 (5)
None			1 (2)
Mean number of CDI episodes (range)	3.9 (3-8)	3.7 (2-11)	3.8 (2-12)
Mean duration of qualifying CDI episode, days (range)	17.1 (2-64)	21.1 (2-78)	18.3 (2-70)

SAFETY

(24-month follow-up in progress)

Key Safety Events	Group A	Group B	Group C
	Total Events/# Subjects (% Total Subjects)		
Adverse Events	169/25 (61.0)	105/26 (59.1)	105/31 (72.1)
Serious Adverse Events (SAEs)	19/13 (31.7)	8/6 (13.6)	18/7 (16.3)
SAEs possibly related to product	3 (7.3)	0 (0)	-

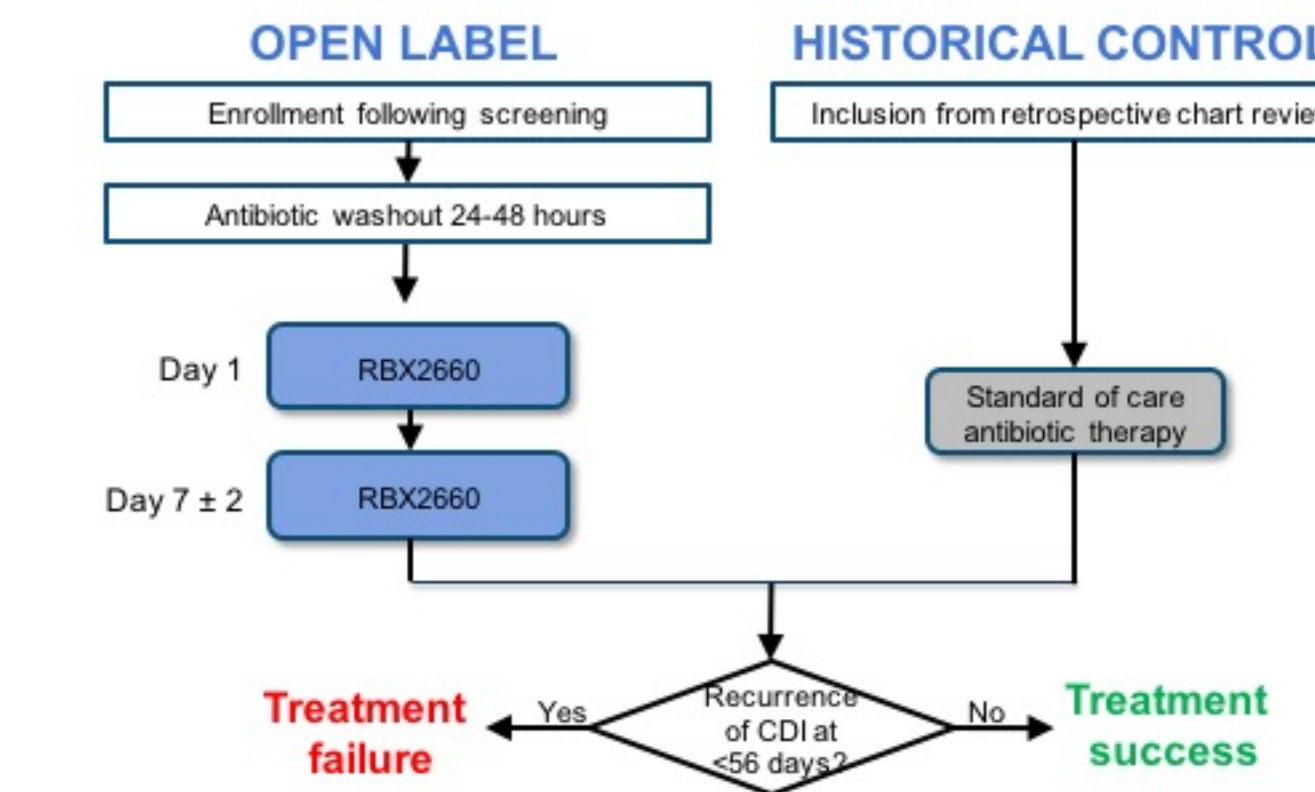
EFFICACY



RBX2660 IS EFFICACIOUS & SAFE relative to historical controls

A Phase 2 open-label trial (NCT02589847)

TRIAL DESIGN



DEMOGRAPHICS

CHARACTERISTIC	2 doses RBX2660	Historical Control
n	136	110
Mean age – years (range)	65.8 [19-103]	67.8 [21-97]
Female sex - n (%)	88 (65)	76 (69)
Race-White – n (%)	124 (91)	40 (36)
Treatment for CDI Episodes – n (%)		
Vancomycin	428 (59)	322 (55)
Fidaxomicin	58 (8)	40 (7)
Metronidazole	196 (27)	166 (28)
Other	29 (4)	54 (9)
Mean number of CDI episodes (range)	4.8 [2-25]	5.4 [2-11]
Mean duration of CDI episode, days	22.6	36.9

SAFETY

(24-month follow-up in progress)

Key Safety Events	RBX2660	Historical Control
	Total Events/# Subjects (% Total Subjects)	
Adverse Events	385 / 94 (69.1)	691 / 69 (62.7)
Serious Adverse Events (SAEs)	80 / 23 (16.9)	80/31 (28.2)
SAEs possibly related to product	3 (2.2)	-

EFFICACY

