

## BACKGROUND

- Two large, placebo-controlled phase III trials, MODIFY I and MODIFY II demonstrated that bezlotoxumab (BEZ) when combined with antibiotics had lower recurrent *Clostridioides difficile* infection (CDI) rates compared to placebo.
- Patients with one or more of these: age  $\geq 65$  years, an immunocompromised state, severe CDI or a prior history of CDI in the last 6 months benefit the most.
- Those with 3 or more risk factors have the greatest recurrence reduction.

## OBJECTIVES

We report differences in recurrence rates in patients with recurrent CDI receiving BEZ stratified by these prespecified risk factors.

## METHODS

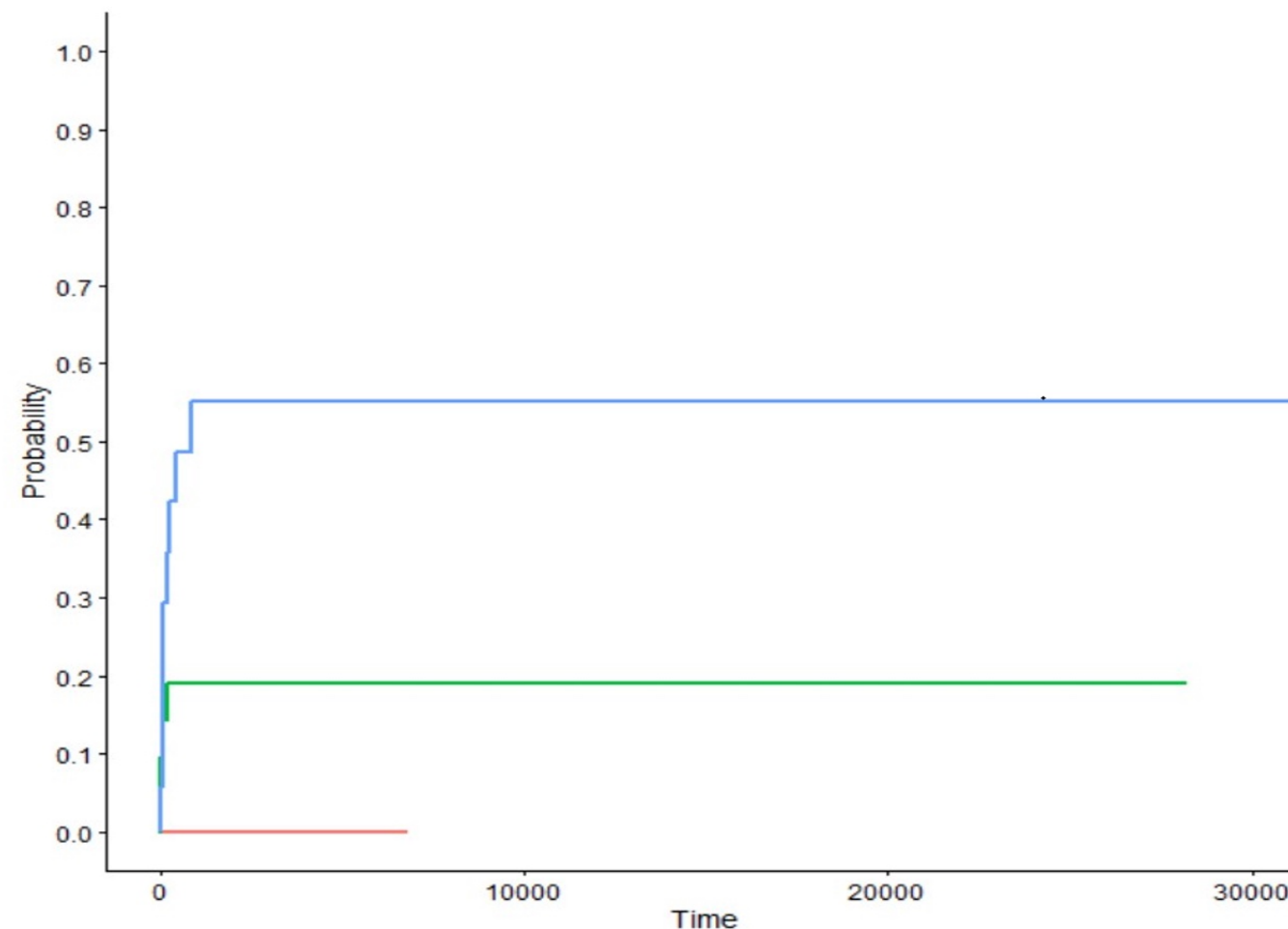
- We conducted a retrospective study of all patients treated with BEZ from 2017-2021 at Mayo Clinic.
- Patient demographics, CDI diagnostics, number of CDI episodes, antibiotics received and the number of prespecified risk factors were analyzed.
- A Kaplan Meier survival curve and Cox model was constructed to generate hazard ratio (HR) and confidence intervals (CI).

## RESULTS

- A total of 47 patients treated with BEZ, of which 59.6% (28/47) were female, median age 62 years (range 23-94) were included.

## RESULTS

- 34 patients (72.3%) had CDI resolution and the other 13 patients recurred (27.6%).
- Kaplan Meier survival curve analysis showed that after treatment with BEZ, there was a significantly higher probability of recurrence in groups of patients with 1, 2 or 3 risk factors (log-rank test,  $p=0.018$ ) (Figure 1).
- With an increase in the total number of risk factors, there is also an increase in the risk of recurrence (HR 3.97, 95% CI 1.37-11.50) ( $p=0.010$ ).



**Figure 1:** Kaplan Meier survival analysis after treatment with BEZ in patients with 1 (red), 2 (green) or 3 (blue) risk factors

No. of Risk Factors	Median Prior Episodes (range)	Recurrence Rate (%)
1	3.5 (1-8)	0/8 (0%)
2	3 (1-10)	4/22 (18.2%)
3	4 (1-7)	9/17 (53%)

**Table 1:** Characteristics of patients with 1, 2 and 3 risk factors

## CONCLUSION

The benefit of BEZ is lower in CDI patients with a greater number of risk factors. More studies are needed to evaluate the clinical efficacy of BEZ in patients with a higher number of prespecified risk factors.