

Immune checkpoint inhibitor therapy in patients with preexisting inflammatory bowel disease

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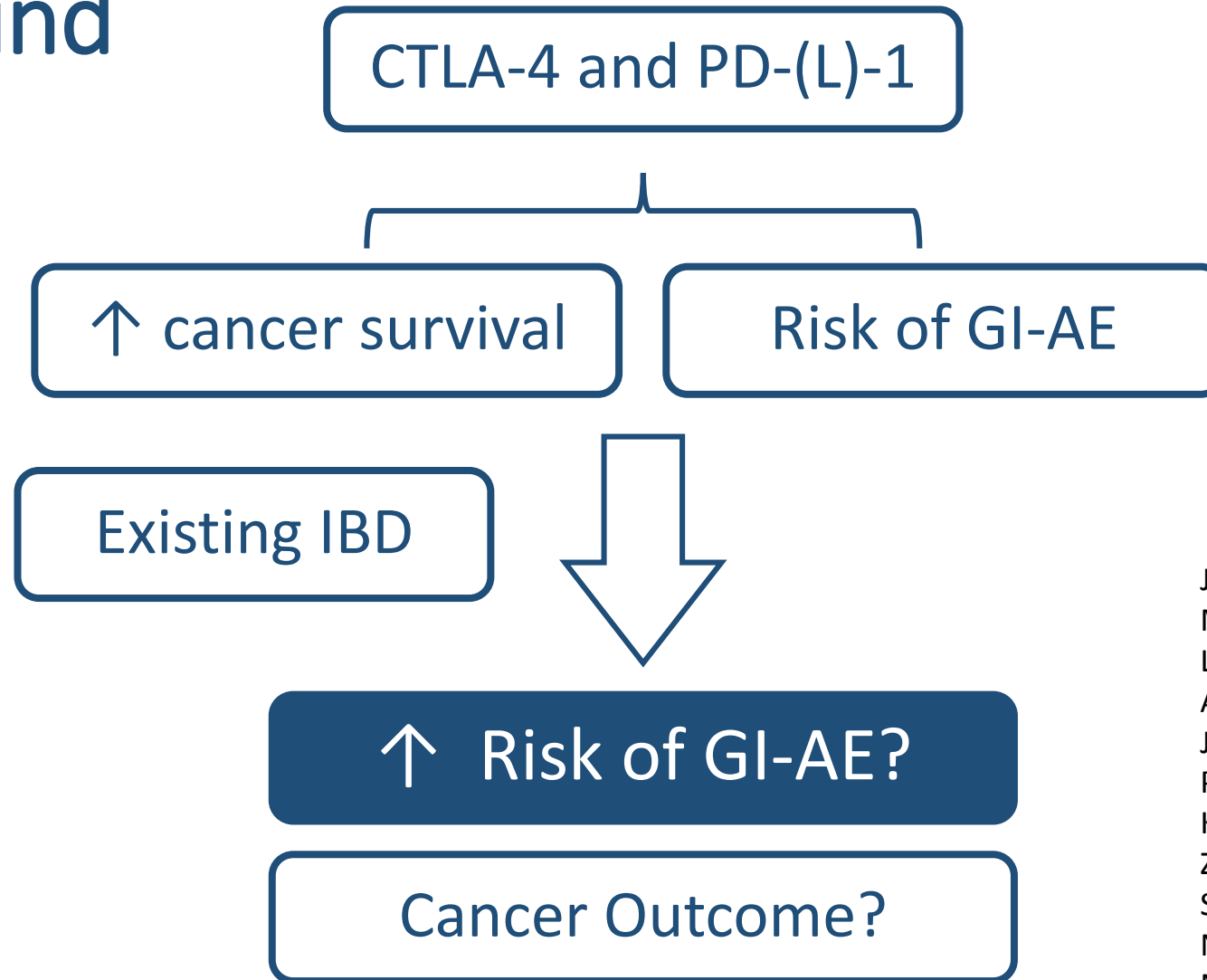
The University of Missouri-Kansas City



Disclosure

- No financial disclosure

Background



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Aim

To assess the risk of GI-AE in patients with preexisting IBD who received ICI therapy

Methods

- Retrospective cohort study
- Multicenter and multinational
- January 2010 – February 2019
- IBD confirmed histopathologically and treated medically

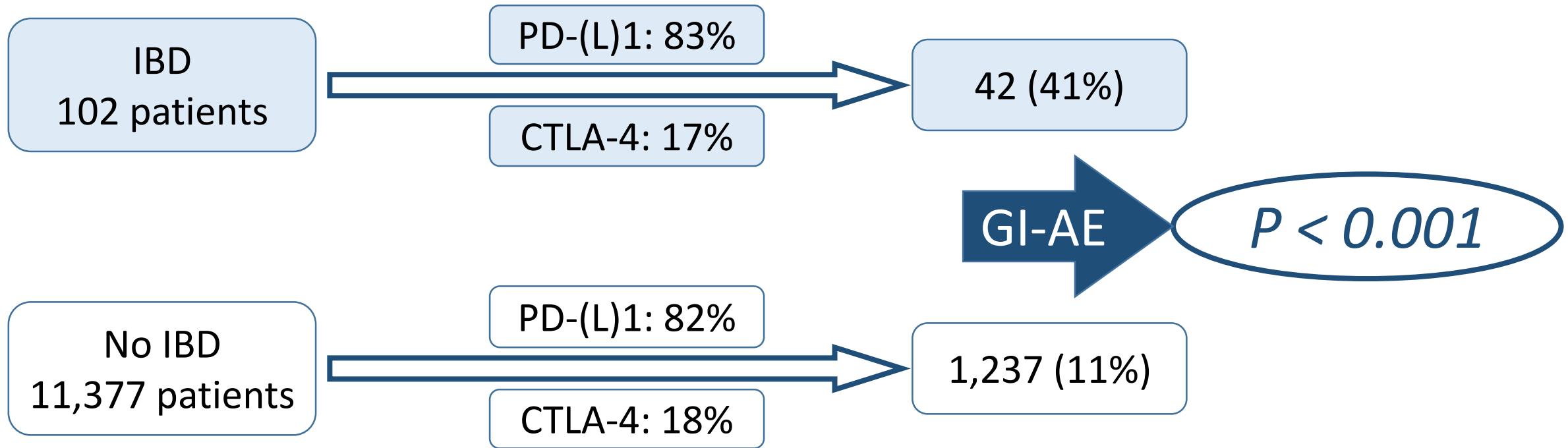
Methods

USA	International
MD Anderson Cancer Center	Imperial College London (UK)
Memorial Sloan Kettering	Kings College London (UK)
Massachusetts General Hospital	The Ella Lemelbaum Institute (Israel)
Johns Hopkins	University Perugia (Italy)
Dana-Farber	Bologne University (Italy)
Yale University	
Vanderbilt University	
Ohio State University	
East Carolina University	

Population

- Adult cancer patients who received ICI therapy
- Median follow up 7 months (3-20)
- **Case group: IBD**
- **Control group: No IBD**

Primary Outcome



Demographics of IBD patients

Age	65 (54-74)
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Male	69 (68)
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Non-Hispanic White	94 (92)
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Cancer type	
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Melanoma	45 (44)
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Lung	23 (23)
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Gastrointestinal	17 (17)
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IBD features

Crohn's disease	49 (48)
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Ulcerative colitis	49 (48)
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IBD treatment < 3 months	59 (58)
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Extent of IBD (*n* = 75)

Small bowel	15 (20)
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Colon	50 (67)
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Both	10 (13)
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GI-AE Features

Days from ICI to GI-AE	62 (33-123)
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CTCAE diarrhea grade

1-2	20 (49)
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3-4	21 (51)
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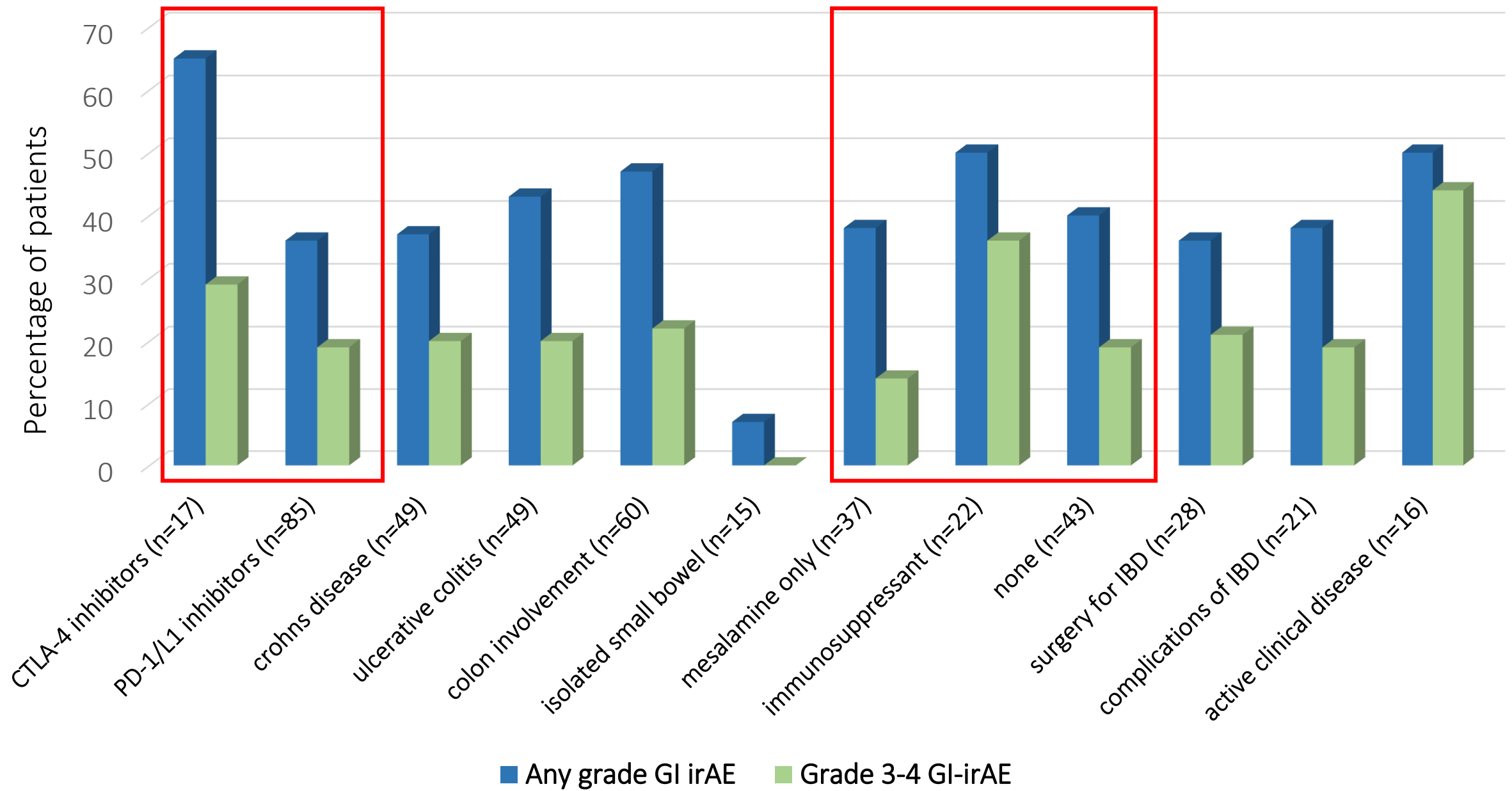
Treatment of GI-AE

Corticosteroid	32 (76)
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Infliximab or vedolizumab	12 (29)
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GI-AE Outcomes

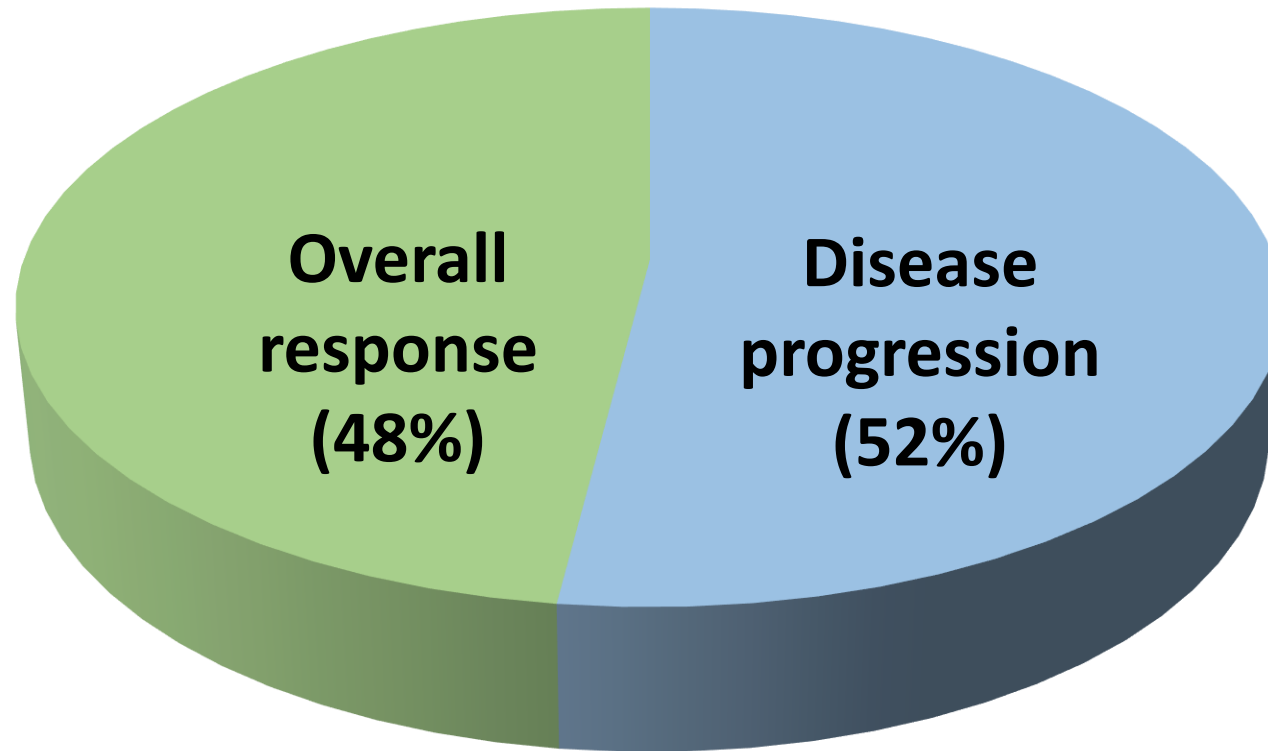
ICU admission	2 (5)
Colonic perforation	4 (10)
Surgery	2 (5)
Recurrent GI-AE	15 (36)
GI-AE-related death	0 (0)



Multivariate Logistic Regression for GI-AE

Characteristics	Odds ratio	95% CI	<i>P</i> value
Anti-CTLA-4	4.72	0.95-23.53	0.058
Colon involvement	3.61	0.85-15.27	0.081
Time from IBD to ICI	0.98	0.94-1.01	0.190
Prior IBD surgery	0.56	0.19-1.67	0.290

Cancer Outcome



Limitations

- Retrospective
- Limited sample size
- No predetermined criteria
- Control group clinical features
- Multiple cancer types

Conclusions

- IBD increases risk of GI-AE in patients receiving ICI therapy
- GI-AEs are mainly manageable with current treatments
- Colonic perforation in 4%
- No GI-AE-related death
- Cancer outcomes in IBD are comparable to non-IBD

Future Direction

Prospective studies in IBD patients who are planned to receive ICI to assess:

- Risk of GI-AE
- Risk factors for GI-AE
- Outcomes of GI-AE
- Cancer outcome

Acknowledgement

- Yinghong Wang
- David M. Faleck
- Michael Dougan
- Biagio Ricciuti
- Robin B. Mendelsohn
- Abdul Rafeh Naqash
- Justine V. Cohen
- Maclean C. Sellers
- Aanika Balaji
- Guy Ben-Betzalel
- Ibraheim Hajir
- Jiajia Zhang
- Mark M. Awad
- Giulia Costanza Leonardi
- Douglas B. Johnson
- David J. Pinato
- Dwight H. Owen
- Sarah A. Weiss
- Giuseppe Lamberti
- Mark P. Lythgoe
- Lisa Manuzzi
- Christina Arnold
- Wei Qiao
- Jarushka Naidoo
- Gal Markel
- Nick Powell
- Sai-Ching J. Yeung
- Elad Sharon

Thank You!