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Molecular tumor board impact at two large health systems

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I have the following financial relationships to disclose:

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I will not discuss off label use and/or investigational use in my presentation.

Background

- Molecular tumor board (MTB) is a key component of most precision oncology program, designed to provide a structured multidisciplinary approach to evaluating cancer patients for therapy, clinical trial enrollment, and genetic counseling services
- Two health systems (HS) within the Syapse Learning Health Network (SLHN) separately instituted MTB in 2017, and through a bio-informatics platform have been tracking the impact of these on patient care

Objectives

Describe the collective experience in tracking MTB impact by assessing action following MTB recommendation regarding:

1. Treatment with systemic antineoplastic therapy (Tx);
2. Clinical trial (CT) enrollment, and;
3. Referral to genetic counseling (GC) services

Methods

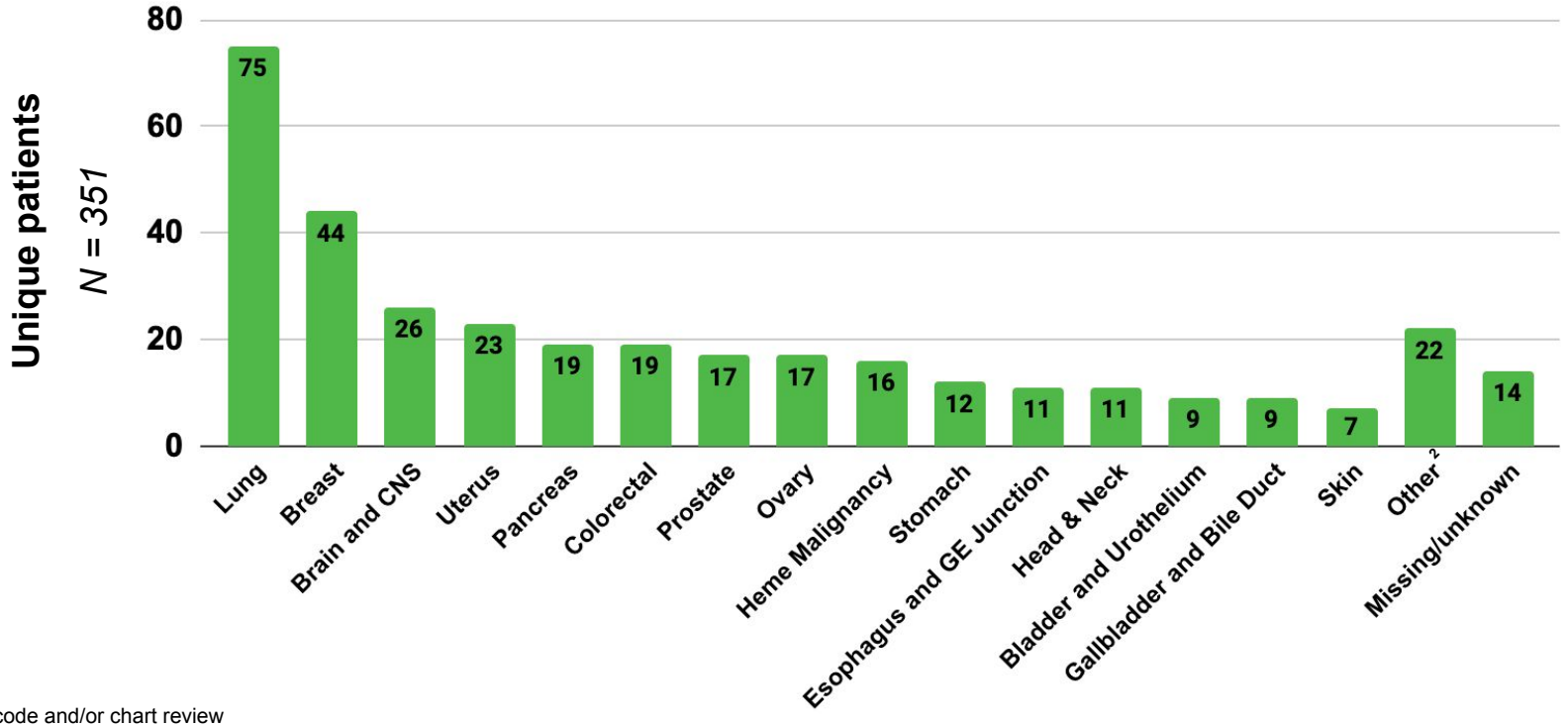
- This is a retrospective cohort study of patients reviewed for the first time by MTB between September 1, 2017 and September 30, 2020 at either of the two HS
- Follow up data were obtained by a certified tumor registrar (CTR) at a median time of 109 days after initial MTB presentation
- Patients were identified for whom anticancer therapy (Tx) or (clinical trials (CT) were recommended and subsequently administered after MTB review, along with pts for whom genetic counselling (GC) was recommended and subsequently had genetic testing performed

Demographic Characteristics

	Total unique patients N = 351
Age at initial MTB review, Categories, N (%)	
18-40	21 (6.0%)
41-60	113 (32.2%)
61-80	185 (52.7%)
80+	32 (9.1%)
Sex, N (%)	
Male	138 (39.3%)
Female	213 (60.7%)
Missing/unknown	
Race, N (%) [1]	
White	290 (82.6%)
Black or African American	46 (13.1%)
Asian	12 (3.4%)
Missing/unknown	12 (3.4%)
Ethnicity, N (%)	
Hispanic/Latino	8 (2.3%)
Non-Hispanic/-Latino	340 (96.9%)
Missing/unknown	3 (0.9%)

[1] Race categories are not mutually exclusive; multiracial patients are counted in each category corresponding to their racial identity

Primary site[1]

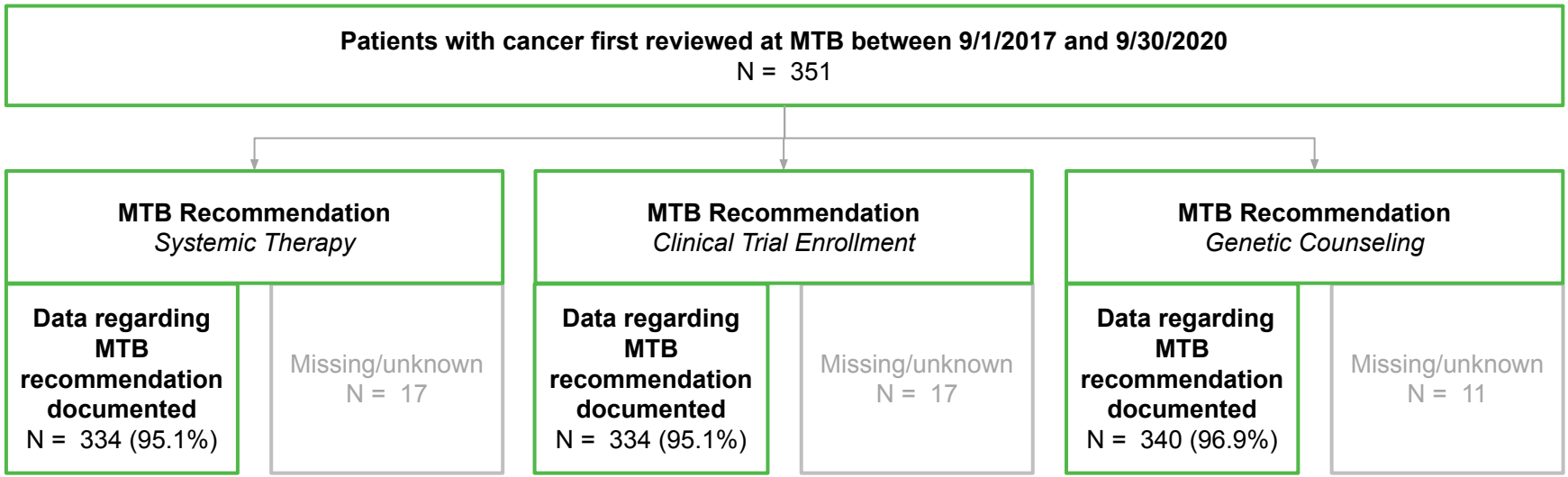


[1] Per ICD code and/or chart review

[2] Other includes: Soft Tissue, Kidney, Anal Canal and Perianal, Bone, Vulva, Thyroid, Retroperitoneal Neuroendocrine, Pleural Mesothelioma, Peritoneal Carcinoma, Liver, Cervix, Adrenal Gland

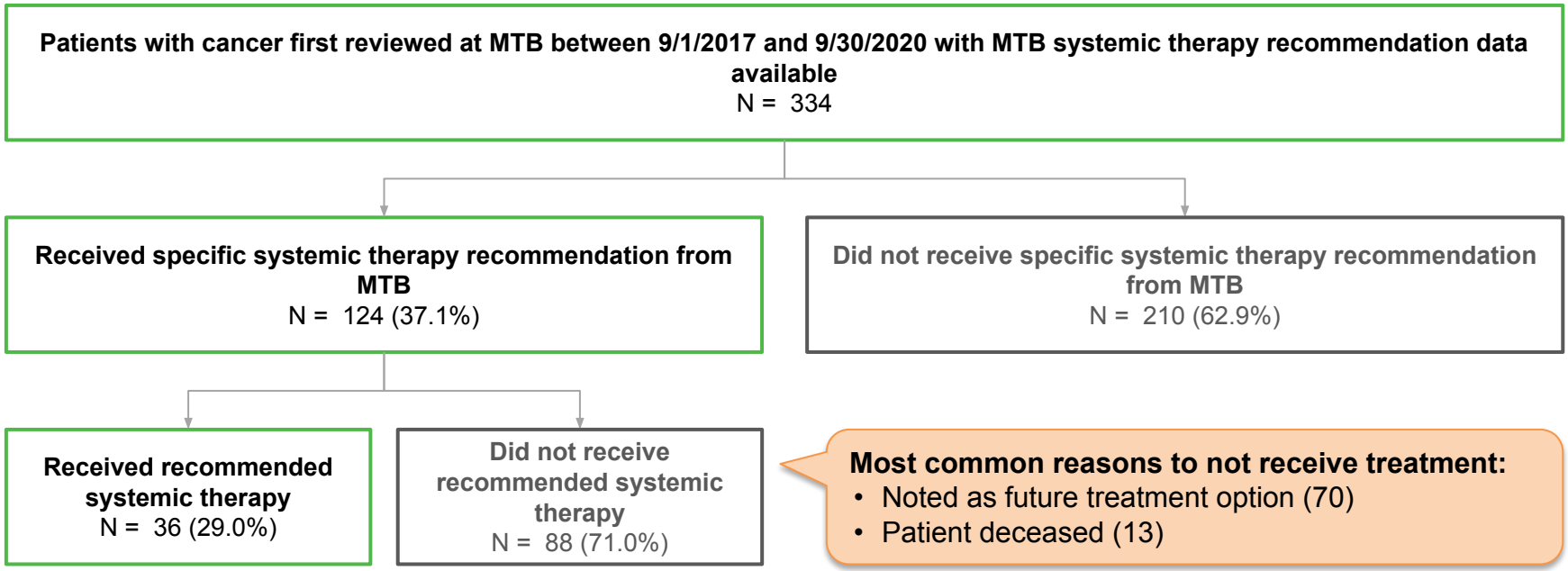
MTB Recommendation

Data Availability



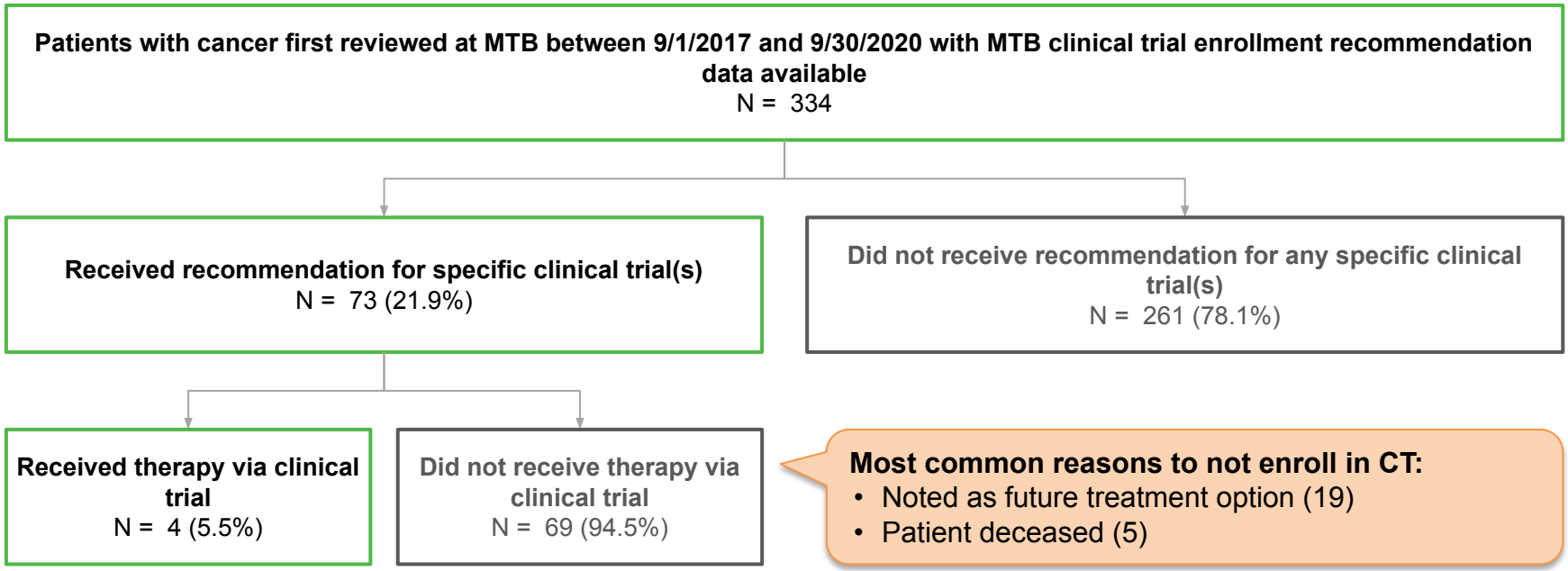
MTB Recommendation

Systemic Therapy (Tx)



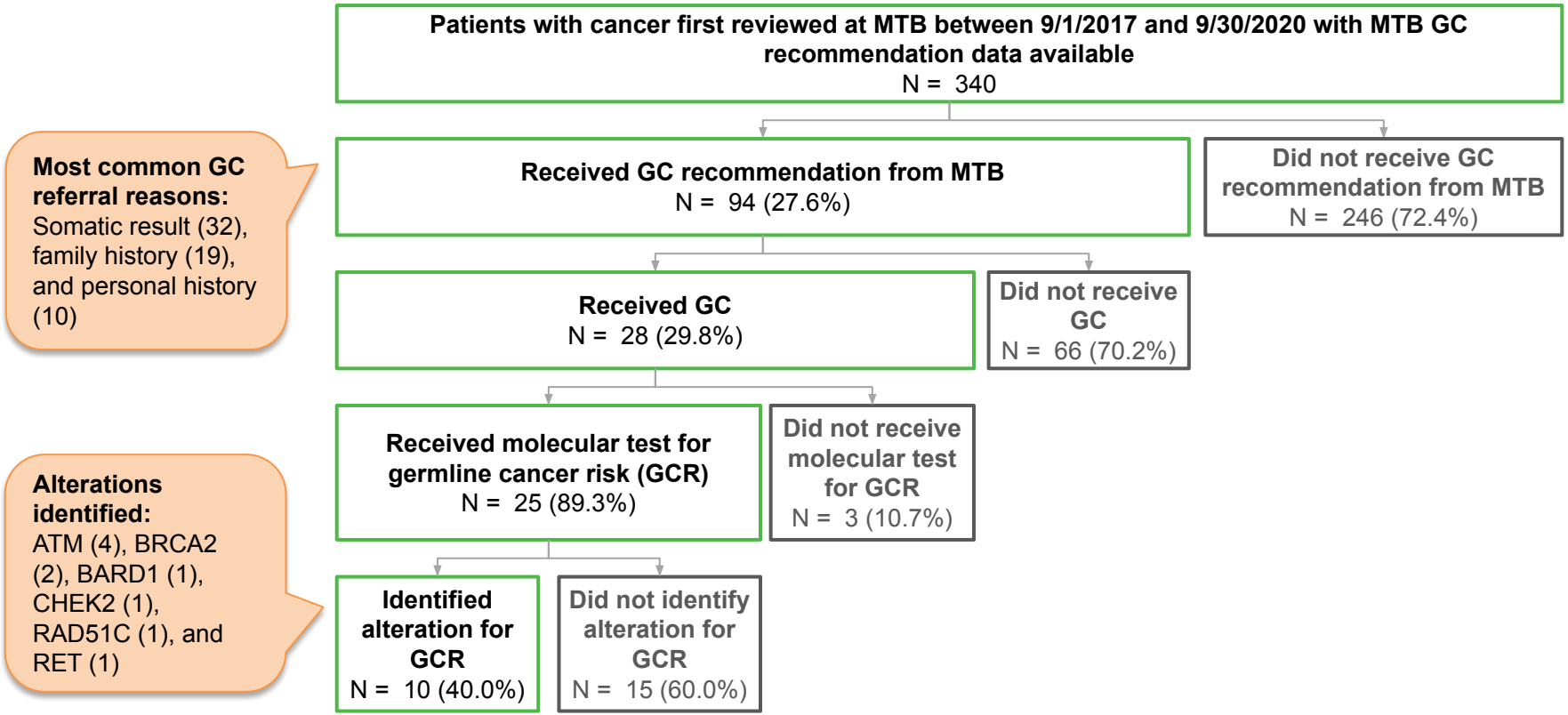
MTB Recommendation

Clinical Trial (CT)



MTB Recommendation

Genetic Counseling (GC)



Conclusions & Future Directions

1. MTB was successful in matching patients to Tx and CT, and in providing appropriate referrals to GC and identifying germline risk mutations
2. Bio-informatics platform provided a uniform format and structure to collate and analyze data between programs
3. Findings provide educational opportunity for care teams regarding MTB recommendation adherence (e.g., potential for earlier referral to MTB to maximize benefit of recommendations)
4. Areas for further investigation include:
    - Insight regarding the relatively low percentage of patients of color whose cases were reviewed in this MTB analysis
    - Analysis of time from initial cancer diagnosis to NGS test and time from initial MTB review to death/hospice
    - Analysis of number of therapies prior to the referral to MTB

Acknowledgments

The research team:

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