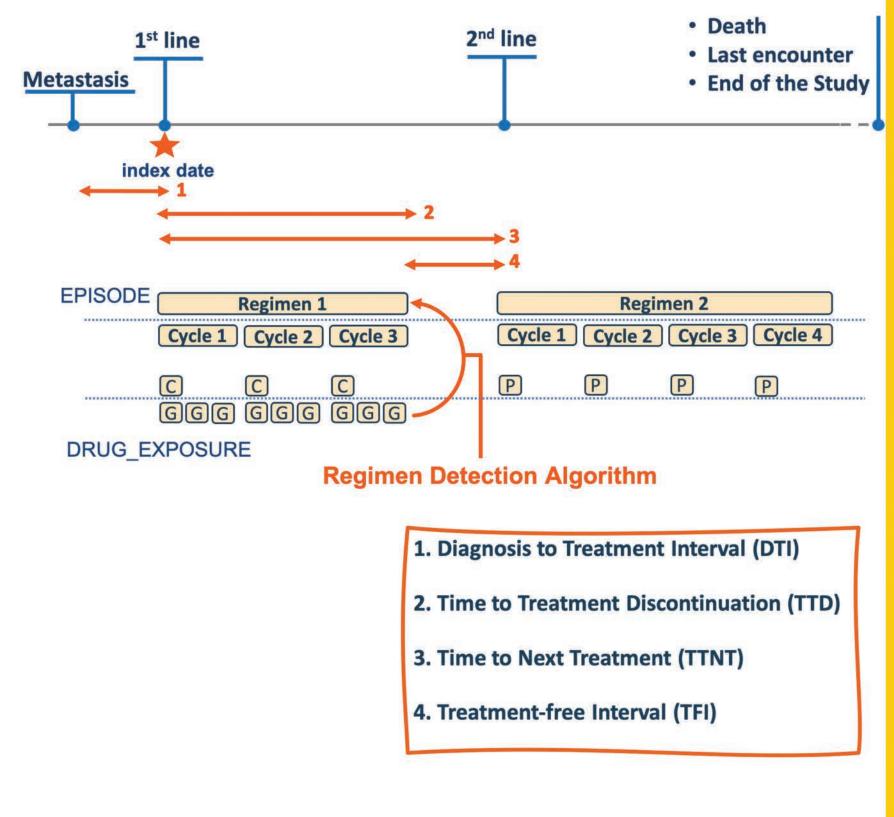
Detailed Cancer Specific Analytics in the Remote OHDSI Network Settings



PRESENTER: Asieh Golozar

- Observational research in oncology is more challenging than other conditions
- The OMOP CDM does not adequately cover cancer diagnoses, treatments and episodes
- The OMOP Oncology Module extends the OMOP CDM and Standardized Vocabularies to support the comprehensive representation of cancer conditions, treatments, and disease abstraction
- In this work, the utility of the Oncology Module to generate real-world evidence in a distributed network was assessed

- Setting
 - **✓ US Academic EHR linked to tumor registry:**
 - 1. Memorial Sloan Kettering (MSK)
 - 2. Tufts University Medical Center
 - 3. Columbia University Medical Center
 - **✓ US Nationwide commercial claims:** OpenClaims
 - ✓ US Nationwide oncology specific EHR: OncoEMR
 - ✓ SK Academic EHR: Ajou University
- **Schematic Study Design**



RESULTS

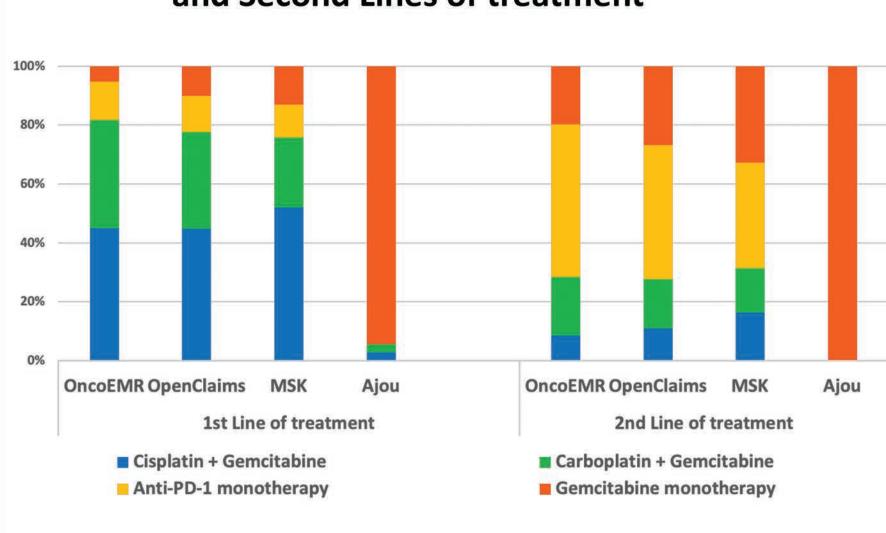
- 11,525 metastatic bladder cancer patients treated with systemic anti-neoplastic agents:
 - Median age: 52 (OpenClaims)- 69 (Columbia)
 - 61%-84% of patients were men
 - *In line with the known epidemiology of the disease
- Median follow-up time (days): 340 (OpenClaims)-474 (Ajou)
- Distribution of top treatment regimens:
 - ✓ Similar in the US databases irrespective of type of data and setting
 - ✓ Different between US and SK: potentially due to differences in treatment guidelines and practice pattern

Observational Cancer Studies in OMOP Oncology Module:

The Oncology Module supports comprehensive representation of cancer conditions, treatments, and disease necessary to address key research questions



Distribution of Top Treatment Regimens in the First and Second Lines of treatment

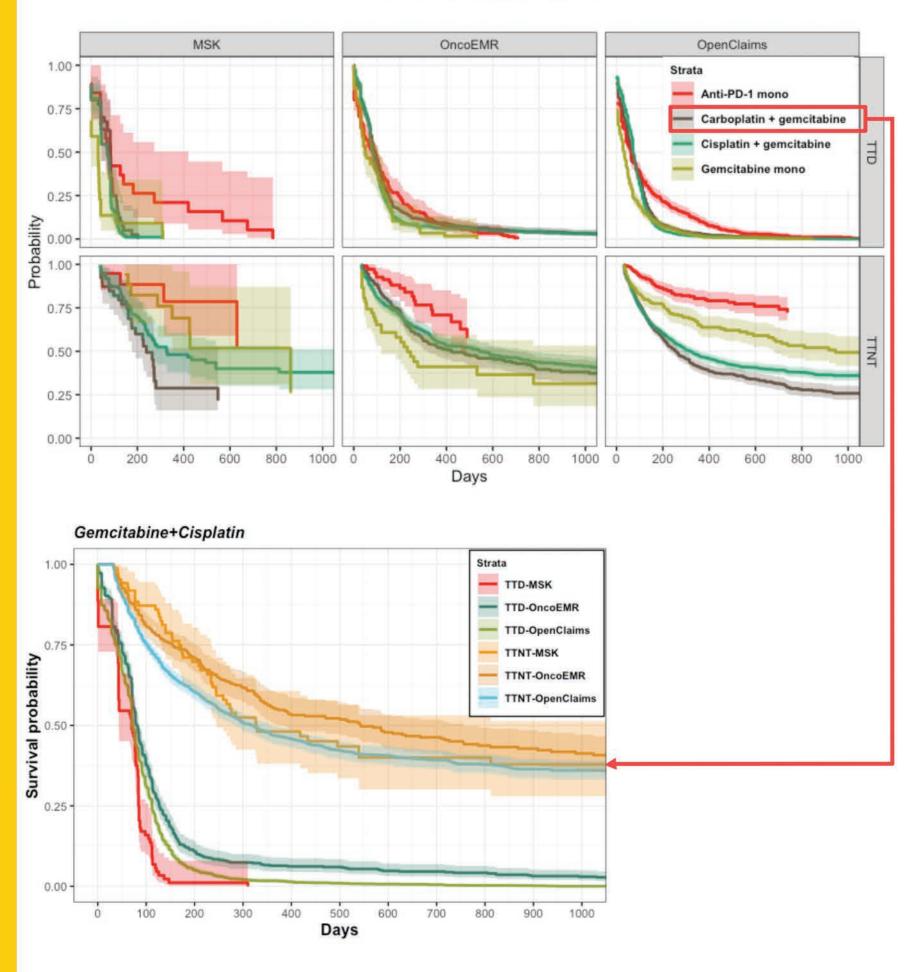


Key Treatment Related Events in 1st Line of Treatment (Median Days)

	N	DTI	TFI	TTNT	TTD
MSK	294	52	62	153	44
Tufts	9	41	NA	NA	40
Columbia	70	48	28	147	30
Ajou	50	41	NA	NA	121
OncoEMR	1,965	35	43	157	71
OpenClaims	9,137	34	37	121	56

DTI: diagnosis too treatment interval; TFI: treatment free interval; TTNT: time to next line of treatment; TTD time to treatment discontinuation NA: Data not available

Selected KM Analysis of TTD and TTNT in the First **Line of Treatment**



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