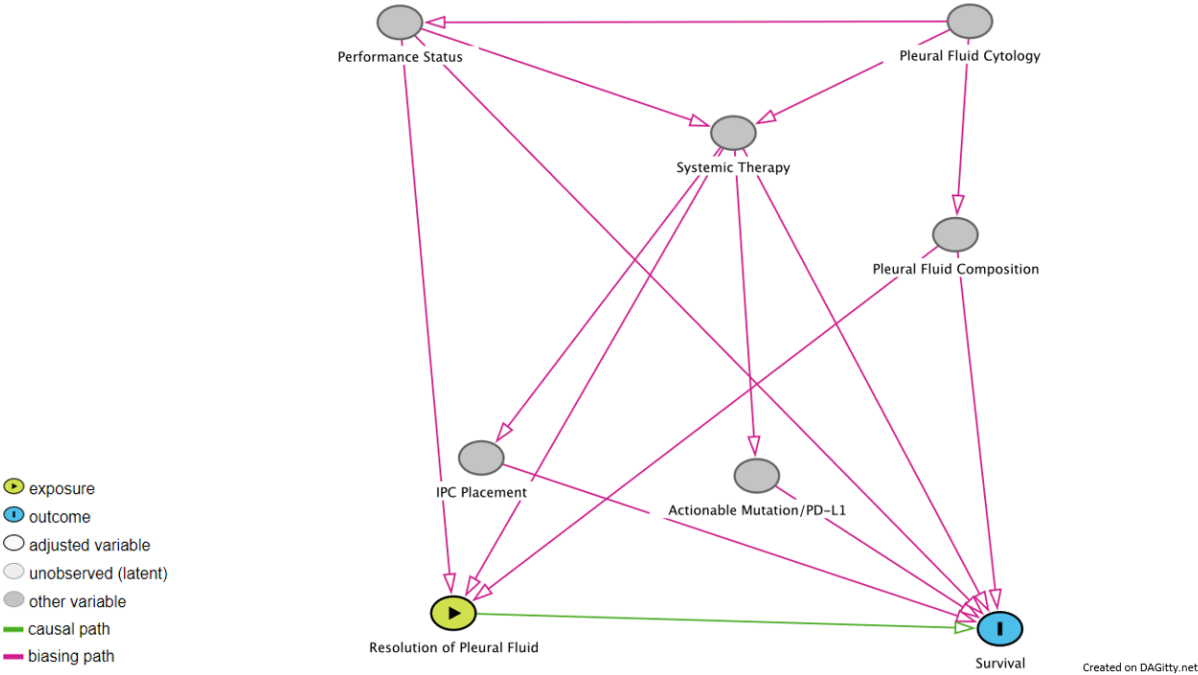
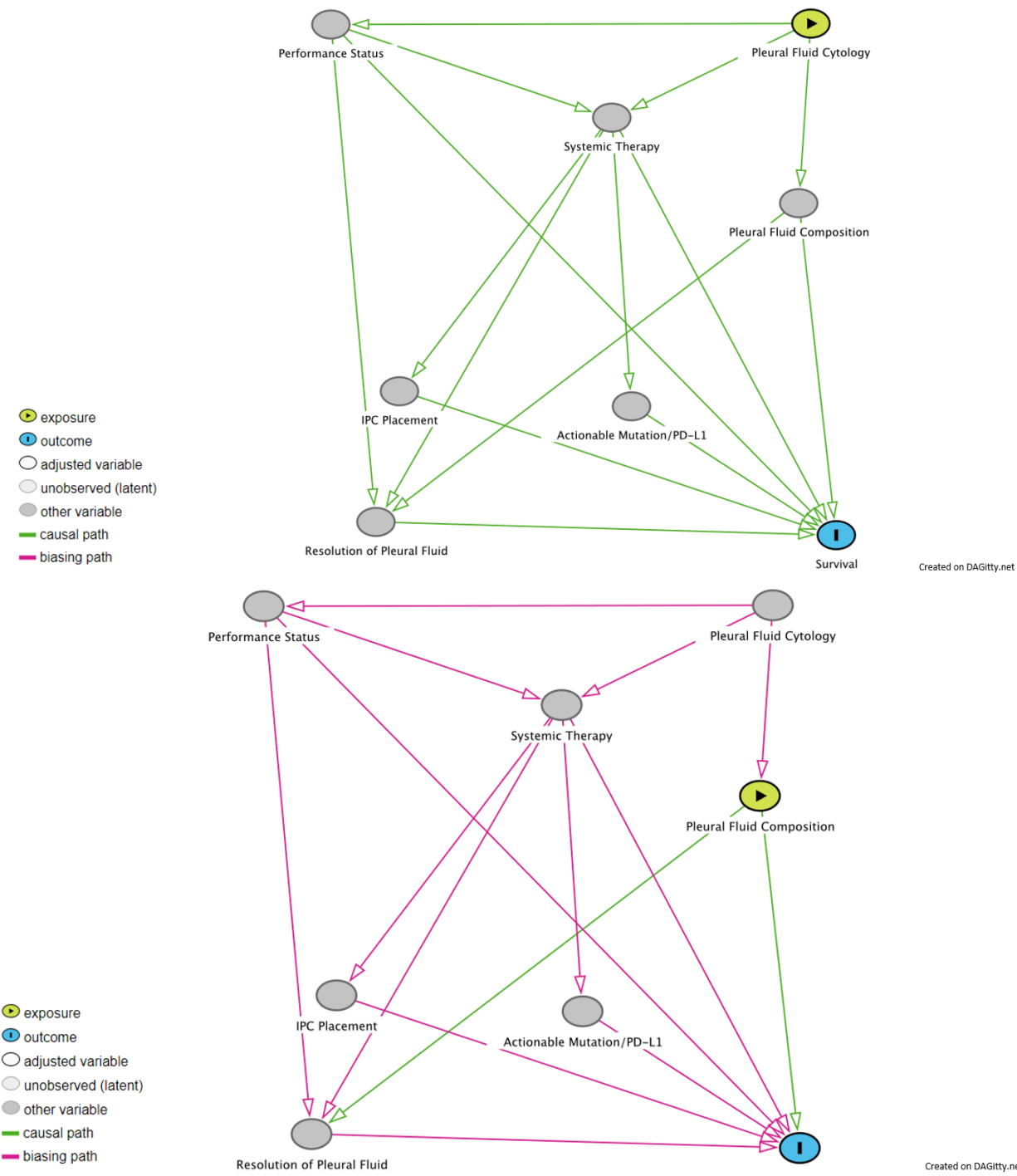
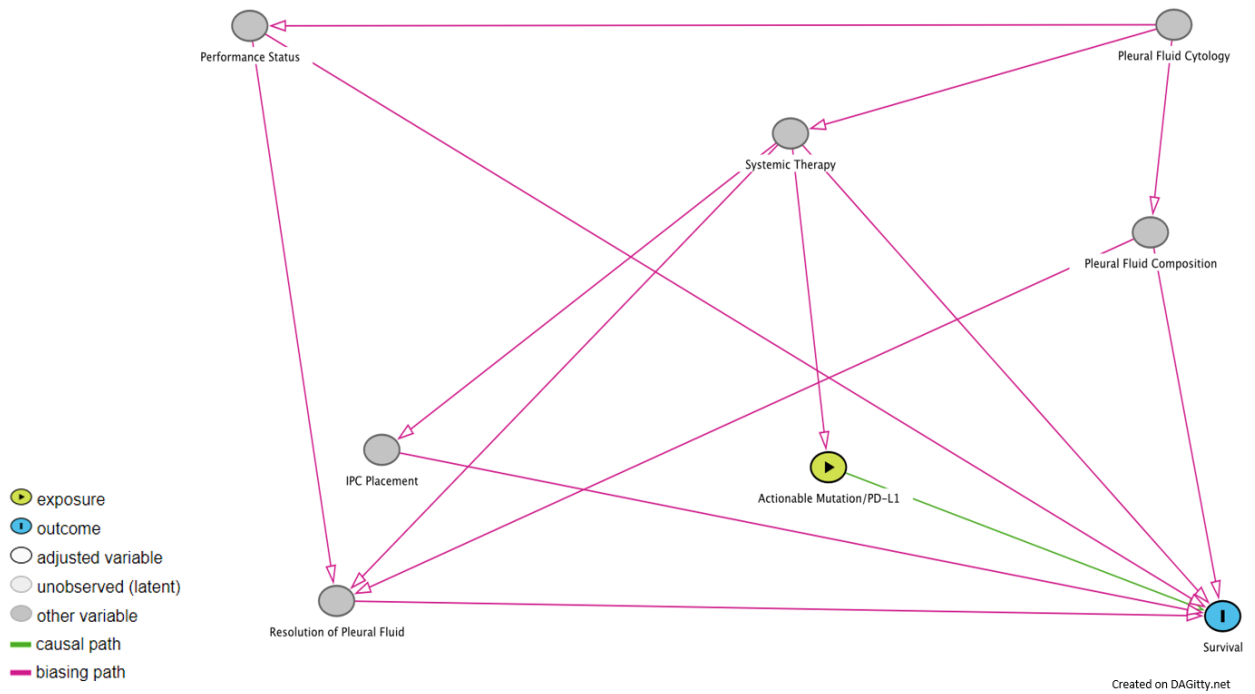
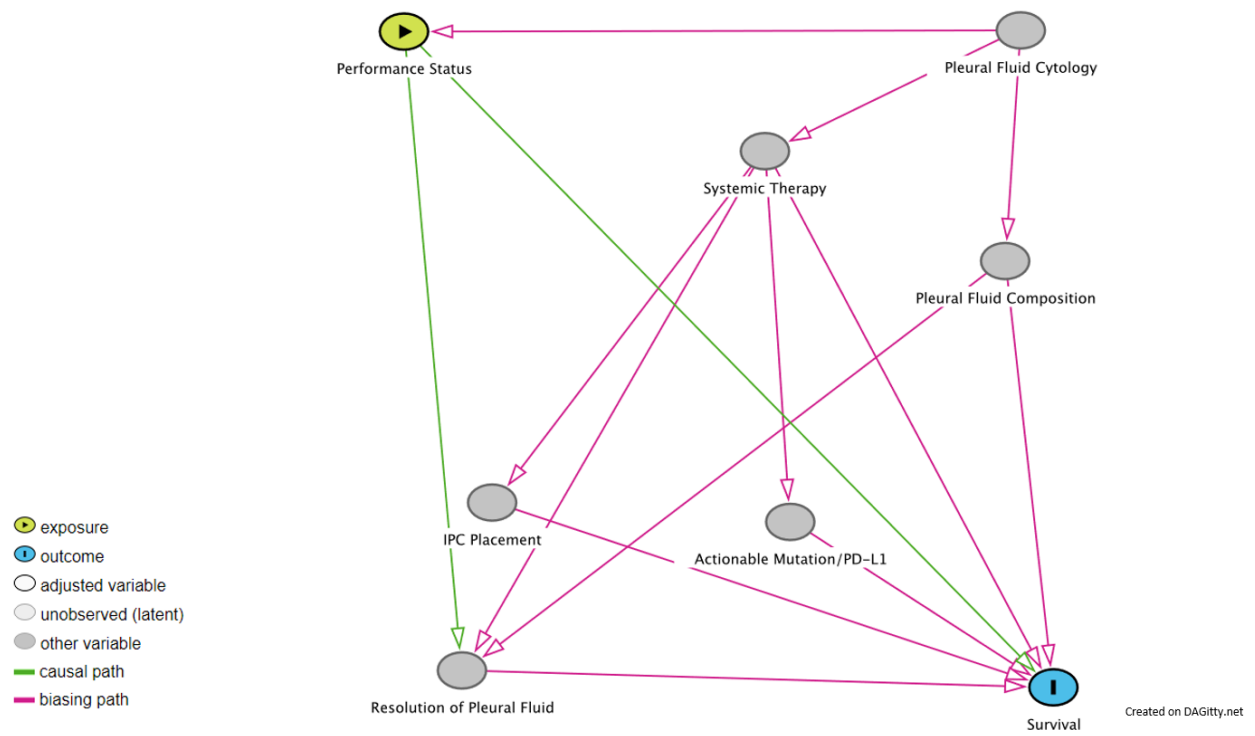


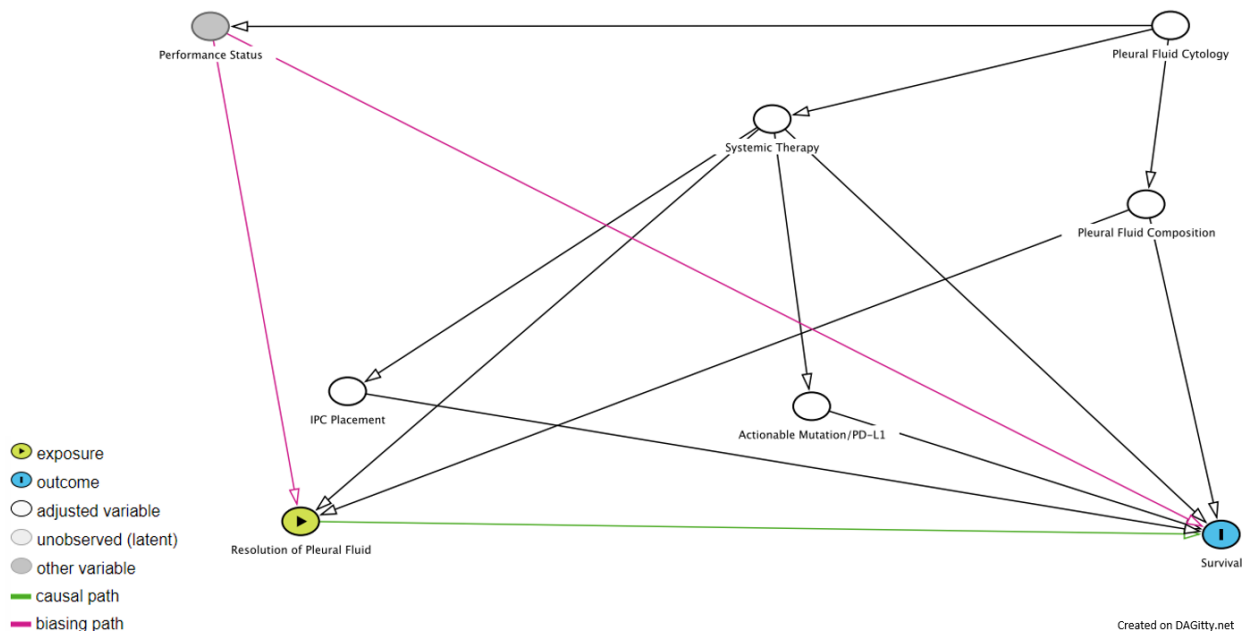
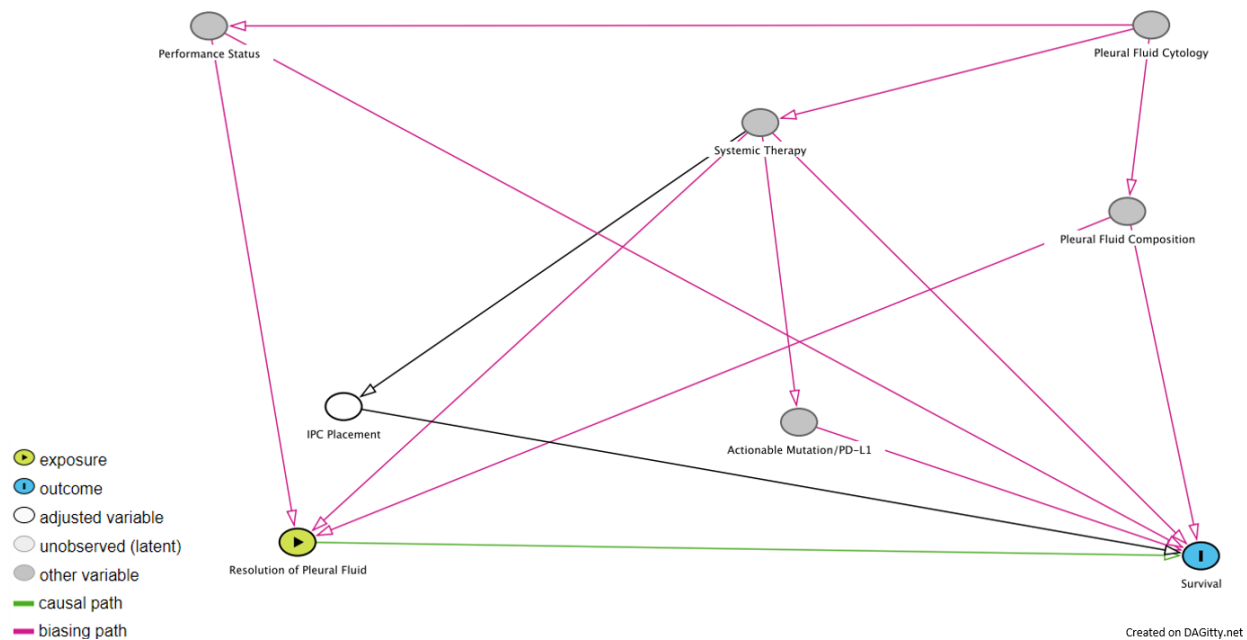
Supplemental Figure S1. Causal Diagram for Variables Selected for Models



Supplemental Figure S2. Predictor Effect of Possible Confounders







**Supplemental Table S1. Distribution of Baseline Variables Between Groups with Resolution of Pleural Fluid and Non-resolution of Pleural Fluid.**

	PF Resolution		No PF Resolution	
Parameter	Frequency	Percent	Frequency	Percent
Chemotherapy naive	12	52.17	49	49
Chemotherapy non-naive	11	47.83	51	51
Cytotoxic therapy given	17	73.91	65	65
Cytotoxic therapy not given	6	26.09	35	35
Hormone therapy given	6	26.09	19	19.39
Hormone therapy not given	17	73.91	79	80.61
IPC placed	23	100	40	40
IPC not placed	.	.	60	60
Immunotherapy given	6	26.09	13	13
Immunotherapy not given	17	73.91	87	87
Actionable Mutation	15	65.22	42	52.5
No Actionable Mutation	2	8.7	11	13.75
No mutation detected	6	26.09	27	33.75
PD-L1 50% or greater	3	60	3	33.33
PD-L1 less than 50%	2	40	6	66.67
PF Cytology Adenocarcinoma of breast	7	30.43	23	23
PF Cytology Lymphoma/leukemia	3	13.04	9	9
PF Cytology Non Small Cell Lung Cancer	1	4.35	3	3
PF Cytology Other	2	8.7	15	15
PF Cytology Small Cell Lung Cancer	.	.	5	5

PF Urogenital cancer	.	.	11	11
PF Adenocarcinoma of Lung	10	43.48	34	34
Pleurodesis performed	.	.	5	5.05
Pleurodesis not performed	23	100	94	94.95
Primary tumor diagnosis Adenocarcinoma of breast	8	34.78	25	25
Primary tumor diagnosis Lymphoma/leukemia	3	13.04	9	9
Primary tumor diagnosis Other	1	4.35	15	15
Primary tumor diagnosis Small Cell Lung Cancer	1	4.35	6	6
Primary tumor diagnosis Urogenital cancer	.	.	9	9
Primary tumor diagnosis Adenocarcinoma of lung	10	43.48	36	36
Radiation therapy naive	16	69.57	64	64.65
Radiation therapy non-naive	7	30.43	35	35.35
Radiation therapy given	12	52.17	47	47.96
Radiation therapy not given	11	47.83	51	52.04
Sex	15	65.22	56	56
Sex	8	34.78	44	44
Currently Smoking	1	4.35	11	11.11
Prior Smoking	11	47.83	49	49.49
Never Smoked	11	47.83	39	39.39
Systemic cancer therapy given	23	100	82	82
Systemic cancer therapy not given	.	.	18	18

Targeted therapy given	8	34.78	18	18
Targeted therapy not given	15	65.22	82	82