Source (95% CI)

## **Primary = Other**

Samstein, Esophagus, n = 21 -1.54 [-3.87; 0.79] Samstein, Unknown, n = 29 -1.05 [-2.85; 0.75] Samstein, HNC, n = 72 -0.94 [-2.25; 0.37] Rizvi.18, Lung, n = 29 -0.69 [-2.45; 1.07] Snyder, Ureteral, n = 22 -0.41 [-2.25; 1.43] Total -0.89 [-1.66; -0.12] Heterogeneity:  $\chi_4^2 = 0.64$  (P = .96),  $I^2 = 0\%$  [0%; 79%]

## **Primary = Melanoma**

Samstein, n = 108-1.23 [-2.03: -0.43] Riaz, n = 42-1.07 [-2.74; 0.60] Liu, n = 133-0.79 [-1.55; -0.03] -0.77 [-2.02; 0.48] Miao.2, n = 43Nathanson, n = 64-0.61 [-1.90; 0.68] Hugo, n = 38-0.49 [-1.94; 0.96]  $Van\_Allen, n = 104$ -0.22 [-1.45; 1.01] -0.81 [-1.22; -0.41] Total Heterogeneity:  $\chi_6^2 = 2.3 \ (P = .89), \ I^2 = 0\% \ [0\%; 71\%]$ Total -0.83 [-1.19: -0.47] Heterogeneity:  $\chi_{11}^2 = 2.97 (P > .99)$ ,  $I^2 = 0\% [<0\%; <58\%]$ Test for overall effect: z = -4.51 (P < .001)

Test for subgroup differences:  $\chi_1^2 = 0.03$  (P = .87)

Estimated logOR