

Supplementary Material

Kidney Function Trajectories in Patients with Ovarian Cancer Treated with Poly (ADP-ribose) polymerase (PARP) Inhibitors

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Supplementary Table 1: Etiology of Sustained AKI in Patients Treated with Olaparib and Niraparib

Age*	PARPi	Etiology of Sustained AKI	UA Preceding AKI**	UA at the Time of AKI**
55	Niraparib	Hemodynamic AKI in the setting of partial small bowel obstruction	+LE, 15 WBCs	1+ blood, 2+ protein, 10 RBCs, 34 WBCs
55	Niraparib	PARPi-related	NA	NA
65	Olaparib	Bevacizumab-associated TMA (clinically diagnosed)	1+ blood, +LE, 2 RBCs, 2 WBCs	Bland
55	Niraparib	PARPi-related	NA	Bland
75	Olaparib	Hemodynamic-mediated AKI after paracentesis	Bland	NA
55	Niraparib	Obstructive AKI	3+ blood, 1+ LE, 2+ protein, >100 RBCs, 10-20 WBCs	1+ blood, 1+ protein, 1 RBCs, 5 WBCs
70	Olaparib	Hemodynamic-mediated AKI in the setting of intravenous contrast and poor oral intake	+LE, +nitrite	Bland
70	Olaparib	Hemodynamic-mediated AKI in the setting of lisinopril use	+LE, 3 RBCs	NA
50	Olaparib	Obstructive AKI	3+ blood, trace LE, 137 RBCs, 2 WBCs	NA
55	Olaparib	Obstructive AKI	Bland	3+ blood, 21 RBCs
60	Olaparib	Hemodynamic-mediated AKI in the setting of <i>Clostridioides difficile</i> diarrhea	2+ LE, 1+ protein, 2+ urobilinogen, 4 RBCs, 182 WBCs	2+LE, 2+ protein, 1+ urobilinogen, 10 RBCs, 151 WBCs
45	Olaparib	Obstructive AKI	Trace LE	3+ blood, 1+ LE, 2+ protein, >100 RBCs, 10-20 WBCs
35	Olaparib	Obstructive AKI	+LE, 1+ protein, 4 RBCs, 31 WBCs	3+ LE, +nitrite, 1+ protein, 4 RBCs, 122 WBCs
70	Olaparib	Hemodynamic-mediated AKI in the setting of diarrhea	Bland	Bland
75	Olaparib	PARPi-related	NA	2+ blood, +LE, 1 RBC, 5 WBCs, 4 hyaline casts
75	Niraparib	Obstructive AKI	2+ LE, 17 WBCs	NA
70	Olaparib	PARPi-related	NA	NA
>80	Niraparib	PARPi-related	1+ blood, +LE, 4 WBCs	1+ blood, +LE, 3 RBCs, 40 WBCs, 8 hyaline casts
25	Olaparib	PARPi-related	3 WBCs	NA
65	Olaparib	Hemodynamic-mediated AKI in the setting of paracentesis	1+ blood	3 hyaline casts
60	Olaparib	Obstructive AKI	3+ blood, 3+ LE, 2+ protein, >182 RBCs, >182 WBCs	1+ blood, +LE, 36 RBCs, >182 WBCs

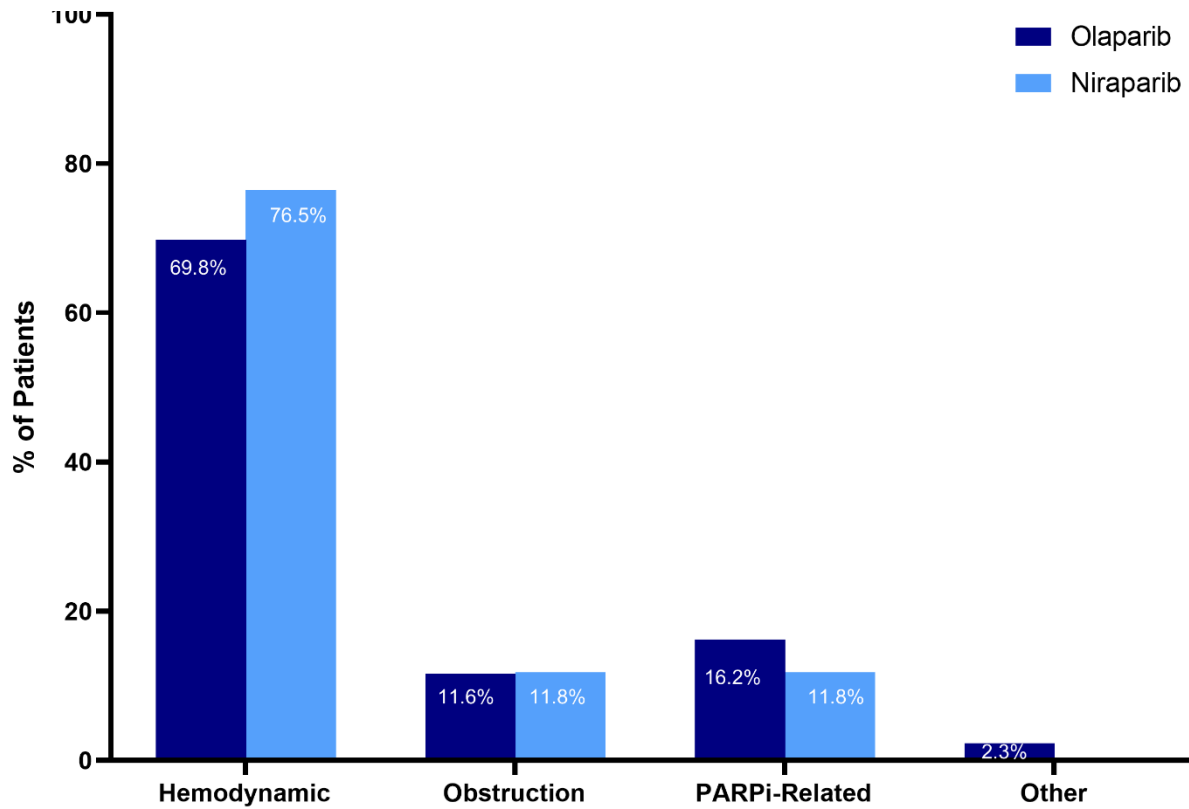
Legend:

*Ages were rounded to the nearest 5 years to maintain anonymity.

**Urinalysis findings preceding sustained AKI were defined as any urinalyses checked in the 6 months prior to and closest to the AKI event. Urinalysis findings at the time of AKI were defined as any urinalyses obtained either on the day of AKI or within 30 days following the date of sustained AKI

Abbreviations: AKI = acute kidney injury, LE = leukocyte esterase, PARPi = Poly (ADP-ribose) polymerase inhibitors, RBCs=red blood cells, TMA = thrombotic microangiopathy, UA = urinalysis, WBCs = white blood cells

Supplementary Figure 1. Etiology of Any AKI in Patients Treated with Olaparib and Niraparib

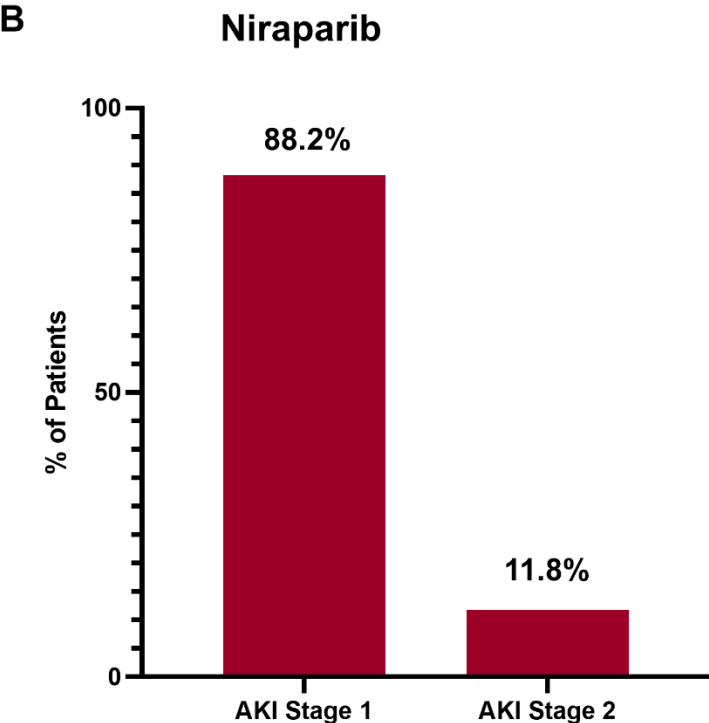
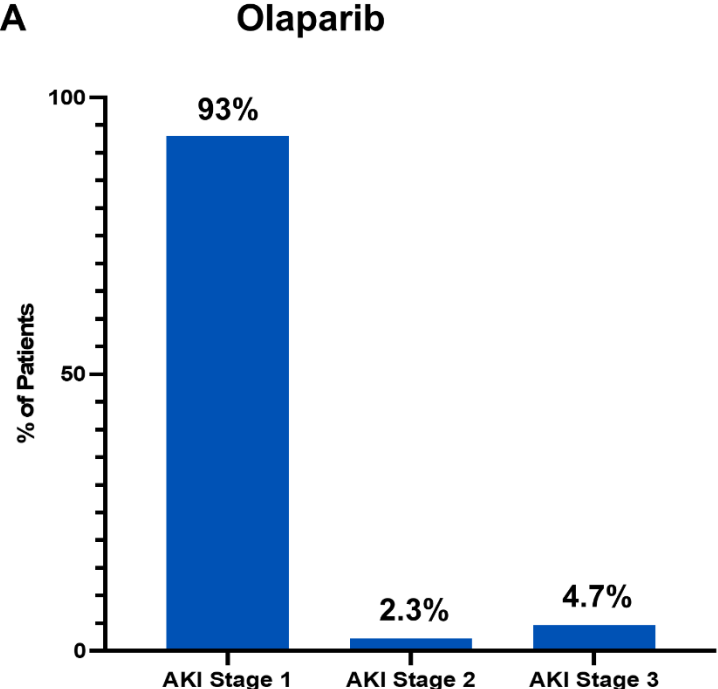


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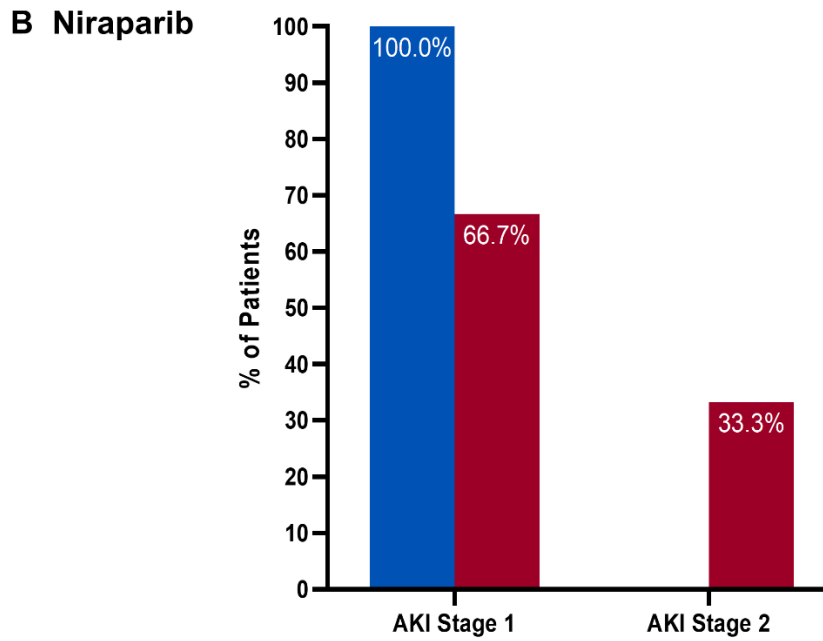
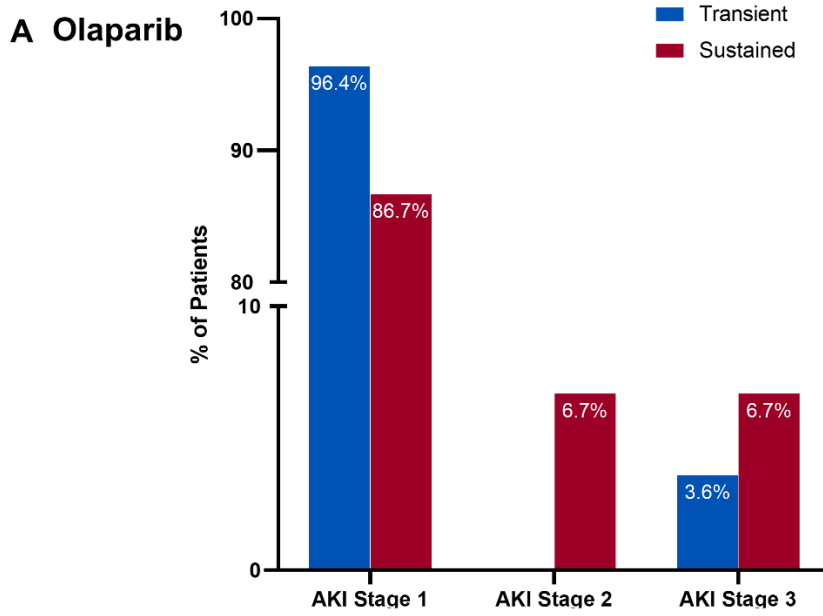
Of the 43 olaparib-treated patients with AKI, 30 (69.8%) had hemodynamic-mediated AKI, 5 (11.6%) had obstruction, 7 (16.2%) had AKI attributable to the PARPi, and 1 had another etiology (2.3%; clinically-diagnosed bevacizumab-associated thrombotic microangiopathy).

Of the 17 niraparib-treated patients with AKI, 13 (76.5%) had hemodynamic-mediated AKI, 2 (11.8%) had obstruction, 2 (11.8%) had PARPi-related AKI, and none had another underlying etiology.

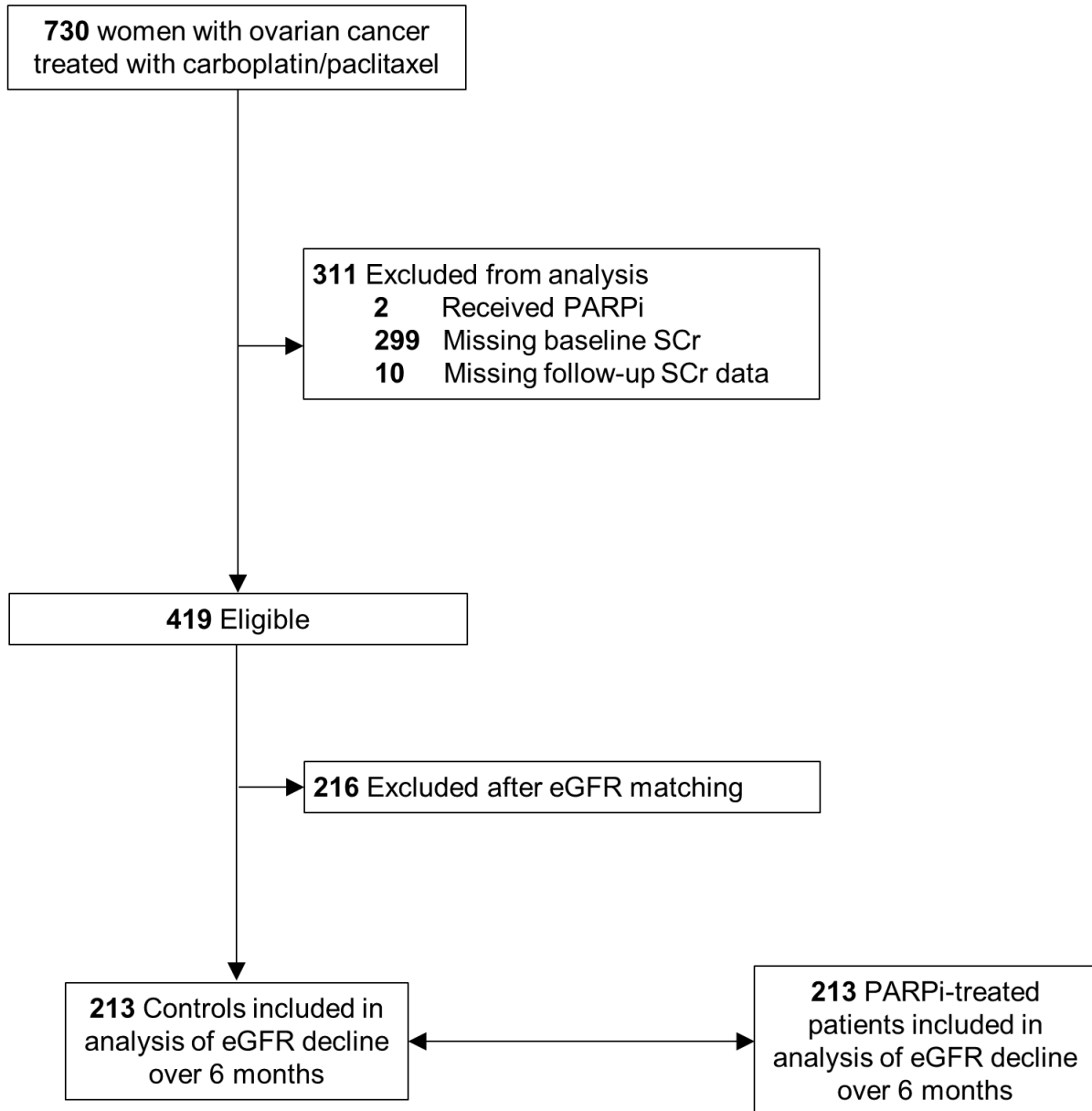
Supplementary Figure 2. Incidence and Severity of AKI among Olaparib and Niraparib-Treated Patients



Supplementary Figure 3. AKI Severity among Olaparib and Niraparib-Treated Patients with Transient versus Sustained AKI



Supplementary Figure 4. Flow Diagram for Carboplatin/Paclitaxel-Treated Matched Controls

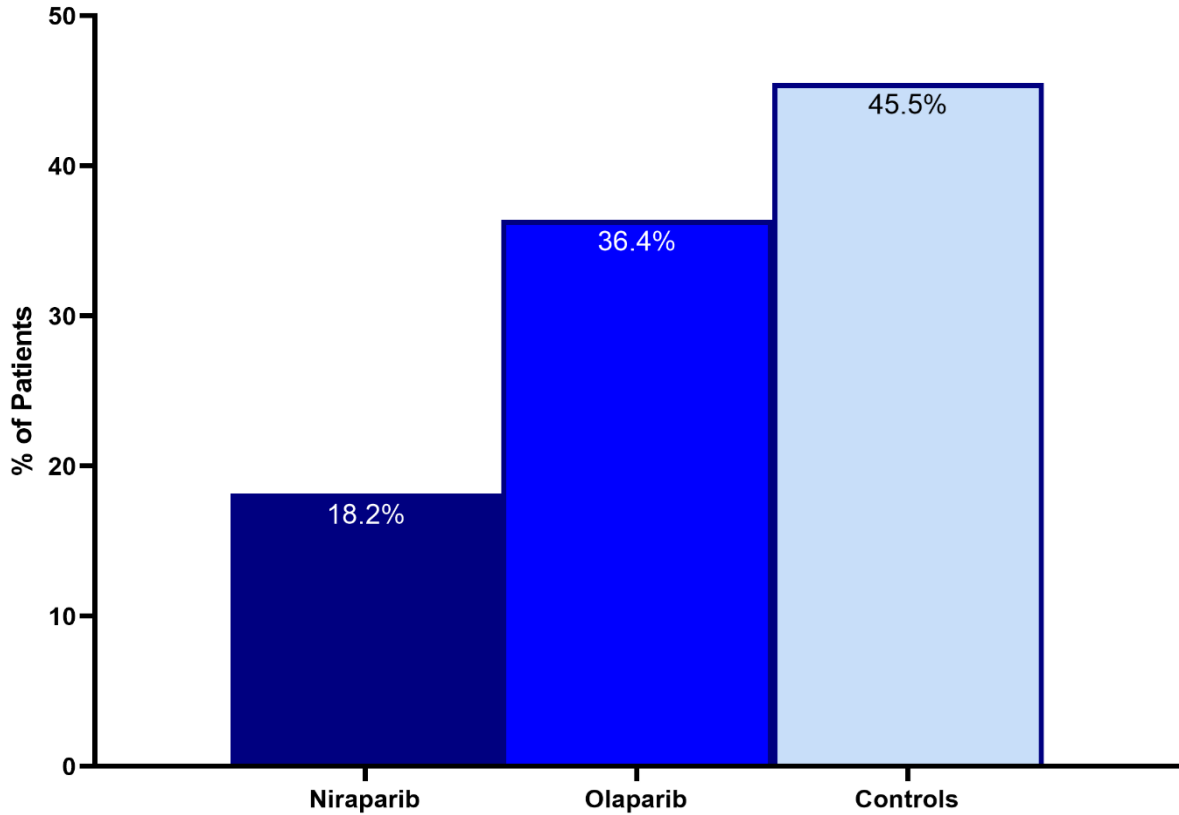


Legend:

Abbreviations: eGFR, estimated glomerular filtration rates; PARPi, Poly (ADP-ribose) polymerase inhibitors; SCr, serum creatinine

Controls were matched with PARPi-treated patients 1:1 by eGFR within 5 ml/min per 1.73 m²

Supplementary Figure 5. Sustained eGFR Decline During 12 Month Follow-Up in PARPi-Treated Patients and Controls



Legend:

Abbreviations: eGFR, estimated glomerular filtration rate

Bar graph shows the proportion of patients treated with niraparib, olaparib, and carboplatin/paclitaxel who had a sustained decline in eGFR in the 12 months following treatment initiation, defined as a sustained decline in eGFR of $\geq 30\%$ for 90 consecutive days or more. Total n=11, of whom 2 were on niraparib (18.2%), 4 were on olaparib (36.4%), and 5 were on carboplatin/paclitaxel (45.5%)