Supplementary Table 1. Basic characteristics of included studies.

Author/ references	Study registration	Disease setting	Design & Study phase	Papulation	Histologic types	Treatment for Experimental	Treatment for Control	Median-follow up (mon)	Median PFS (mon)	OS	Adverse events	HR – progression
González et al. [28]	NCT02655016	Newly diagnosed advanced OC	RCT & III	733 (Exp-487& Placebo -246)	Tumors with homologous-recombination deficiency	Niraparib 300 mg orally once daily	Placebo daily	13.8	Niraparib- 13.8 mon. Placebo-8.2 months	84% in naraparb and 77% in placebo	Expe- Anemia: 31.0%, Thrombocytopenia: 28.7% Neutropenia: 12.8% Placebo- Anemia: 1.6% Thrombocytopenia: 0.4% Neutropenia: 1.2%	HR for Progression 0.62 95% CI: 0.50 to 0.76

Martín et al. [29]	PRIMACT 02655016	Newly diagnosed advanced ovarian cancer	RCT & III	733 (Exp-487 & Placebo-246)	High-grade serous	300 mg daily once daily.	Placebo daily	42	Exp-13.8 Placebo-8.4	24% vs. 14%	Exp- Anemia: 31.6% Thrombocytopenia: 39.7% Neutropenia: 21.3% Placebo- Anemia: 2.0% Thrombocytopenia: 0.4% Neutropenia: 1.6%	HR-0.66 (95% CI, 0.56–0.79)
Coleman et al. [30]	VELIA/GOG-3005	Newly diagnosed advanced-stage	RCT & III	1140 (Exp-765 Placebo-375)	High-grade serous	Veliparib 300 mg daily	Placebo daily	28	Exp-23.5 Placebo-17.3	BRCA-Mutation: 21% HRD - 24% Intention-to-Treat- 49%	Exp- Anemia: 64% Thrombocytopenia: 58% Neutropenia: 75% Placebo- Anemia: 53% Thrombocytopenia: 33% Neutropenia: 68%	HR: 0.68 (95% CI, 0.56 to 0.83; P<0.001
Ray-Coquard et al. [31]	PAOLA-1 - NCT02477644	Newly diagnosed advanced, high-grade OC	RCT & Phase III	806 (Exp - 537 Placebo – 269)	High-grade	Exp- 300 mg BD for 24 months + 15 mg/kg every 3 wks for 15 mon	Placebo plus 15 mg/kg every 3 wks for 15 mon	22.9	Exp-22.1 Placebo-16.6 mon	Exp - 79% Placebo- 80%	Exp % vs Placebo% Exhaustion :53 Vs 32 Sickness: 53 vs. 22, High BP: 46 vs. 60, Low HB: 41 vs. 10, Lymphopenia: 24 vs. 9, Neutropenia: 18 vs. 16, Thrombocytopenia: 8 vs. 3.	HR, 0.59 (95% CI, 0.49 to 0.72; P<0.001)

Moore et al. [32]	SOLO1-NCT01844986	Newly diagnosed advanced OC	RCT & Phase III	391 (Exp-260 Placebo-131)	Serous & endometrioid	Olaparib 300 mg twice daily	Placebo	41	Expl - 36 years Placebo - 13.8	Exp- 84% Placebo- 80%	Exp vs placebo- Any Grade Adverse Effects 98%vs 92%, Grade 3 or 4 Adverse Effects 39% vs 18%, Nausea 77% vs 38%, Fatigue 63 vs 42%, Vomiting 40%vs 0, Anemia 39% vs22%, Diarrhea 34% vs3%, Neutropenia: 23% vs 12%	0.30 (95% CI, 0.23 to 0.41; P<0.001
Schouten et al. [33]	AOLA-1-NCT02477644	Newly diagnosed advanced OC	RCT & Phase III	806 (Exp-538 Placebo - 268)	High-grade serous	Olaparib 300 mg + bevacizumab	Placebo + bevacizumab	54.1	Exp-BRCA-like tumors vs non-BRCA36.4 vs 17.6 Placebo-16.6 vs	Exp- 49.7 mon Placebo- 40.1 mon	Exp Vs Placebo-Anemia: 28% vs 10%. Nausea: 58% vs 32%. Fatigue: 64% vs 34% Neutropenia: 15% vs 6%	0.39 (95% CI: 0.24-0.63)

									18.6			
DiSilvestro et al. [34]	SOLO1 - NCT01844986	Newly diagnosed advanced OC	RCT & Phase III	391 (Exp 260 Placebo-131)	High-grade serous / endometrioid	Olaparib 300 mg twice daily 2 years	Placebo orally for 2 years	88.9	Exp-56.0 Placebo-13.8	Exp- 67.0% Placebo-46.5%	Exp vs placebo: Any grade adverse 98.5% vs. 92.3%, Grade ≥ 3 adverse events: 39.6% vs. 20.0%Nausea 77.7% vs. 37.7% Fatigue 64.2% vs. 41.5%, Vomiting 40.0% vs. 14.6% Anemia 40.0% vs. 10.0%.	0.33 (95% CI, 0.25 to 0.43) after a 5-year follow up
Zhu et al. [35]	PAOLA-1 (NCT02477644)	Newly diagnosed Advanced ovarian cancer	RCT & Phase III	806 (Exp-537 Placebo-269)	Epithelial tumors	Olaparib 300 mg BD two years plus bevacizumab 15 months	15 mg/kg every 3 wks 15 months.	36	Exp-22.9 Placebo-16.6	Expe- 56.5 Placebo- 51.6 months	Exp- Fatigue: 5.0%,Neutropenia: 6.0%,Lymphopenia: 7.0%, Anemia: 17.0%,Hypertension: 19.0% Placebo:Hypertension: 30.0%	0.63 (95% CI, 0.53 to 0.74)
Lorusso et al. [36]	PAOLA-1/ENGOT	Newly diagnosed advanced OC	RCT & Phase III	806 (Exp-595 Place	High-grade serous	Olaparib 300mg for 24 months plus	Placebo plus bevacizumab	61.7	Exp-31.3 Placebo-	Exp- high risk to low risk 55%- 88%	Exp vs Placebo-Thrombocytopenia 17.3% 11.9% Anemia 23.4% vs 18.6%	0.70 (95% CI 0.50 to 1.00)

	-ov25			bo-211)		bevacizumab	15 mg/kg IV every 3 weeks for 15 months		15.9-22.3	Placebo- High risk to low risk- 42%-61%	Neutropenia 20.6% vs 12.9%, MDS, AML 1.8% vs 2.1%	
Li N et al. [37]	PRIME - NCT 03709316	Newly diagnosed advanced OC	RCT & Phase III	384 (Exp-255 Placebo - 129)	High-grade serous	Niraparib - 200 mg/day	Placebo	27.5	Exp-24.8 placebo-8.3	Exp- 87.3% Placebo-82.7% in 24 months-estmated	Exp vs Placebo Grade ≥ 3 Adverse Events 54.5% vs17.8% Anemia 18.0% Thrombocytopenia14.1% Neutropenia 17.3%	0.45 (95% CI, 0.34-0.60; P < .001)
Liu et al. [38]	NCT 01116648.	Relapsed platinum-sensitive OC	RCT & Phase II	100 (Exp-44 Placebo-46)	High-grade serous	Cediranib 30 mg dailyand olaparib 200 mg BD	Olaparib capsules 400 mg	46	Exp-16.5 Placebo-8.2	Exp-44.2 Placebo-33.3	Exp- **Diarrhea**: 68.2%, Fatigue: 52.3%, **Hypertension**: 36.4% **Nausea**: 68.2%, Thrombocytopenia: 18.2%, Neutropenia: 9.1%	HR for Progression: 0.50 95% CI: 0.30 to 0.83

							twice daily				Placebo- Nausea: 73.9% Fatigue: 45.7% Anaemia: 15.2%, thrombocytopenia: 6.5%, Neutropenia: 10.9%	
Friedlander et al. [39]	Study 19 NCT 00753545	Platinum-sensitive, recurrent high-grade serous OC	RCT & Phase II	265 (Exp-136) Placebo-129)	High-grade serous	Olaparib capsules 400 mg BD	Placebo	74	Exp- 8.4 Placebo-4.8	Exp-29.8 months Placebo-27.8 months.	Exp vs Placebo- Nausea: 71% vs 36%. Fatigue/Asthenia: 63% vs 46%. Vomiting: 35% vs 14% Anemia: 23% vs 7% .	95% CI: 0.25–0.49, P < 0.0001
Penson et al. [40]	SOLO3 NCT 00628251	Relapsed advanced OA	RCT & Phase III	266 (Exp-178 , Placebo - 88)	Serous & endometrioid	Olaparib 300 mg twice a day	Placebo	13.8	Exp-13.4, Placebo-9.2	Baseline TOI score: 71.8. Change from baseline: -4.8. Sample size: n = 62.	**Exp: MDS, AML:** 2.2% vs. 3.9%, Nausea: 64.6% vs. 34.2%, Fatigue: 52.2% vs. 42.1%, Vomiting: 38.2% vs. 22.4%,Diarrhea: 28.1% vs. 17.1%,Anemia :21.3% vs. 0%, Neutropenia: 9.6% vs. 15.8%	0.62 (95% CI, 0.43 to 0.91); P = .013
Mirza et al .[41]	NCT 01847274	Platinum-sensitive, recurrent	RCT & III	553 (Exp-372&	High-grade serous	Niraparib-300 mg	Placebo daily	16.9	Exp- 9.3 mon	Exp- 16.1% Placebo-19.3%	Exp-Thrombocytopenia: 61.3% Anemia: 50.1%	HR for Progression: 0.45

		ovarian cancer		Placebo-181)					Placebo-3.9 mon		Neutropenia: 30.2% Placebo-Anemia:6.7% Thrombocytopenia: 5.6% Neutropenia: 6.1%	95% CI: 0.34 to 0.61 P<0.001
Liu et al. [42]	NRG-GY004 - NCT02446600)	Platinum-sensitive OC	RCT & Phase III	565 (Exp-378 Placebo-189)	High-grade serous or endometrioid	Olaparib 300mg / Olaparib 200mg /cediranib 30mg	Placebo	24	Expl: 8.2-10.4 Placebo-10.3	Exp-Olaparib/cediranib: 30.5 Olaparib: 29.2 Placebo- 31.3	Exp vs Placebo Anemia 35.3% vs43.7% Neutropenia 13.7%vs 31.1% Thrombocytopenia 0 vs 6.0% Diarrhea 82.6, Fatigue 80.9%	HR: 1.2 (95% CI, 0.93 to 1.5)
Pujade-Lauraine et al. [43]	OReO/ENGOT-ov38 (NCT03106987)	Platinum-sensitive relapsed OC	RCT & Phase III	220 (Exp-144 Placebo-74)	Non-mucinous epithelial OC	Olaparib tablets 300 mg twice daily	Placebo	7	Exp- 4.3 (BRCA-mutated Cohort) 5.3 (Non-BRCA-mutated)	20.1 months (BRCA-mutated), 20.9 months (non-BRCA-mutated)	Fatigue/asthenia, nausea, anemia	BRCA-0.57 (95% CI: 0.37-0.87, P=0.022) Non BRCA-0.43 (95% CI: 0.26-0.71, P=0.0023).

									Placebo-2.8 (BRCA and non BRCA)			
Coleman RL et al. [44]	ARIEL3-NCT01968213	Recurrent, platinum-sensitive OC	RCT & Phase III	564 (Exp-375 Placebo-189)	High-grade serous	Rucaparib 600 mg BD in 28-day cycles.	Placebo 28-day cycles.	Not specified	Exp-10.8 Placebo-5.4	Exp: 78% Placebo-78%	Exp vs placebo-Any grade events 100%vs 96%, 56% vs 15%, Anemia 19% vs 1%,	0.36 (95% CI 0.30–0.45), p<0.0001

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