



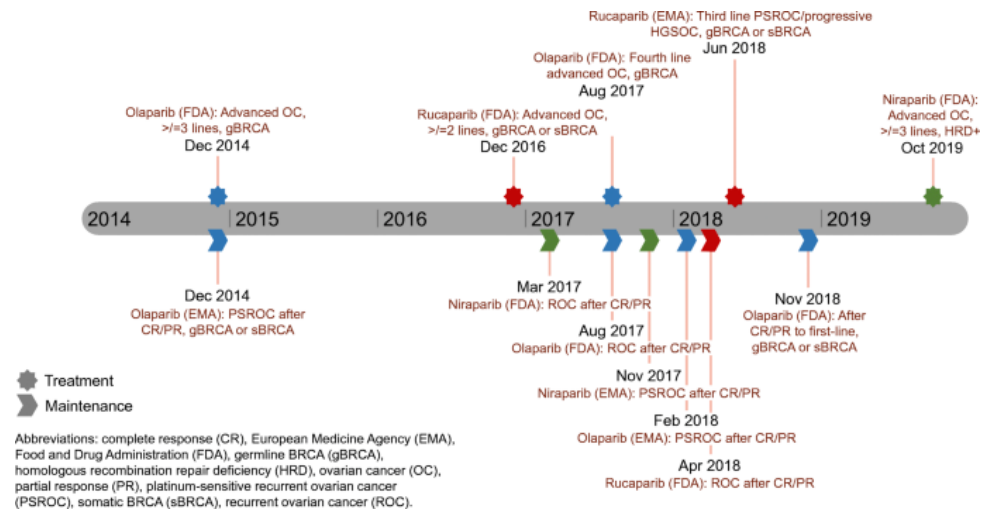
PARP Inhibitor Selection

Survive and Thrive 2022
Madeline Bice MSN, NP-C
October 7, 2022



PARP Inhibitors used in Gynecologic Cancer

- Olaparib
- Niraparib
- Rucaparib



Roles for PARPS: Ovarian Cancer

- Maintenance after first line treatment
- Maintenance after treatment for platinum sensitive recurrence
- Treatment for platinum resistant recurrence

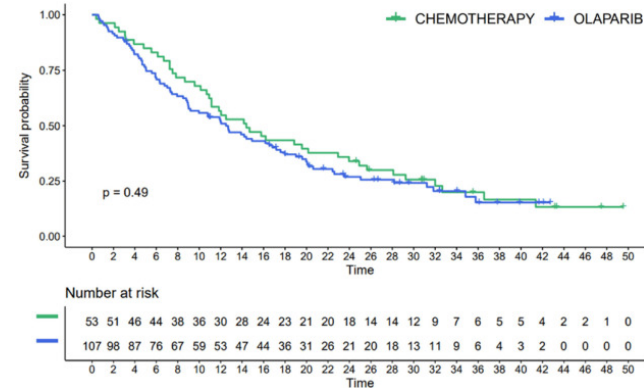


Maintenance after first line treatment

- All ovarian cancer patient should undergo BRCA testing (germline and somatic) . Can consider HRD testing
- **SOLO1: olaparib maintenance for BRCA+ patients** -> BRCA+ patients should receive olaparib maintenance for 2 years after completion of upfront treatment
- **PAOLA-1: olaparib and bevacizumab maintenance** -> HRD + patients olaparib + bevacizumab maintenance for 2 years after completion of upfront treatment is reasonable option
- **PRIMA trial: Niraparib regardless of BRCA status** -> For all patients niraparib maintenance for 3 years after completion of upfront treatment is reasonable option

Treatment for Platinum Resistant Recurrence

- For patients who have not yet received a PARP and who have multiple prior lines of therapy, PARPs may be an appropriate treatment choice, especially if they are BRCA+
- CLIO Trial
 - platinum resistant ovarian cancer regardless of BRCA status
 - Randomized 2:1 olaparib vs investigator choice chemotherapy
- QUADRA Trial
 - recurrent ovarian cancer ≥ 3 lines of chemotherapy
 - All treated with Olaparib



Phase II QUADRA Trial of Niraparib in Ovarian Cancer With ≥ 3 Prior Chemotherapy Regimens

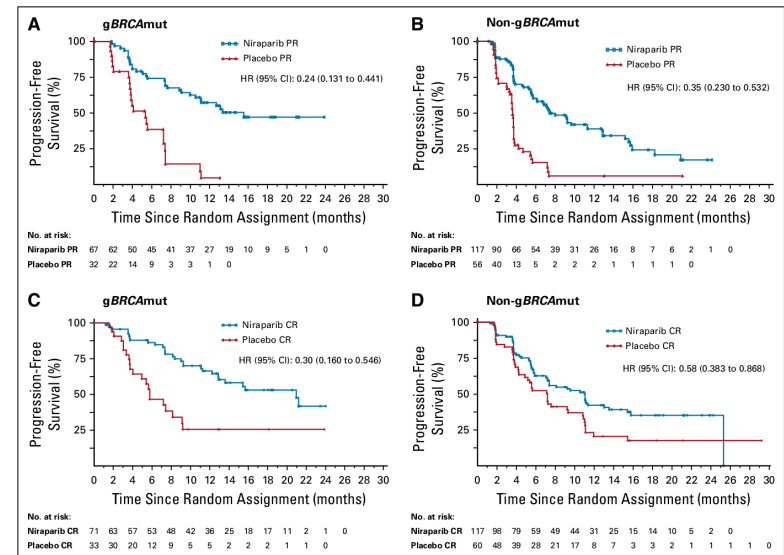
- Multicenter, open-label, single-arm phase II trial
 - Patients with histologically diagnosed advanced, relapsed, high-grade serous epithelial ovarian, fallopian tube, or primary peritoneal cancer with ≥ 3 chemotherapy regimens (N = 463*)
 - Niraparib 300 mg QD 28-day cycles until PD
- Primary endpoint: ORR by RECIST in HRD-positive patients with:
 - 3-4 lines of prior chemotherapy
 - Platinum sensitivity
 - No prior PARP inhibitor

*After 292 patients enrolled, study limited to those with 3-4 prior chemotherapy regimens and response for ≥ 6 mos to first-line platinum chemotherapy.

Moore. Lancet Oncol. 2019;5:636. Slide credit: clinicaltrials.com

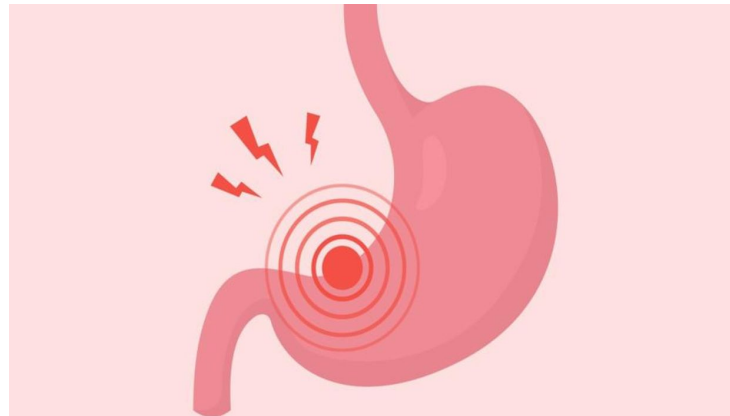
Maintenance After Treatment for Platinum Sensitive Recurrence

- Platinum sensitive patients who have completed platinum-based chemotherapy and have not previously received a PARP should be considered for PARP maintenance
- All three are approved for this indication
 - NOVA Trial: Niraparib vs placebo
 - Study 19: Olaparib vs placebo
 - ARIEL Trial: Rucaparib vs placebo



Expected and Rare Side Effects

- Fatigue
 - Headache
 - Nausea
 - Vomiting
 - Diarrhea
 - Decreased appetite
 - Abdominal pain
 - Dyspepsia
- Hematologic toxicities
 - Anemia
 - Neutropenia
 - Thrombocytopenia
 - Often able to be addressed with dose reduction



Thank You