

## Positive Quality Intervention: Niraparib (Zejula®): Dose Modifications Based on Weight and Platelet Counts

**Description:** The purpose of this PQI is to highlight key criteria for appropriate monitoring, dosing, and administration to improve the dispensing and management of patients taking niraparib.

**Background:** Niraparib is indicated for the maintenance treatment of patients with recurrent epithelial ovarian, fallopian tube, or primary peritoneal cancer who are in a complete or partial response to platinum- based chemotherapy. Additional indication in patients with three or more prior chemotherapy regimens and whose cancer is associated with homologous recombination deficiency (HRD) positive status (BRCA+ or BRCA- with Genomic Instability Positive (GIS+) disease). Niraparib efficacy is particularly pronounced in patients with BRCA1/2 mutations but also yields therapeutic benefit in those without germline BRCA mutations. Discontinuation due to thrombocytopenia, anemia, and neutropenia occurred, respectively, in 3%, 1%, and 2% of patients. Retrospective analysis of the pivotal phase III NOVA clinical trial reveals most dose adjustments occurred within 3 months and did not appear to compromise efficacy.

### PQI Process:

- Verify dose on initial fill—labeled starting dose is 300 mg once daily
  - **Consider starting at 200 mg daily for patients with baseline weight < 77 kg or baseline platelets < 150K**
  - In practice, it has been seen at starting doses of 100 mg once daily as well
- Ensure patients should start treatment with niraparib no later than 8 weeks after their most recent platinum-containing regimen
- Consider bevacizumab discontinuation before initiation of treatment with niraparib
- Ensure appropriate monitoring:
  - CBC weekly x 4 weeks, monthly x 11 months, then periodically
  - Heart rate and BP monthly x 12 months, then periodically

### Dose Adjustments:

- Discontinue if adverse effect that has not resolved within 28 days or grade  $\geq 3$  while on 100 mg/day

Dose Adjustments for hematologic toxicity: **\*\*MINIMUM dose 100 mg/day\*\***

<b>Platelets &lt; 100 K</b> (Monitor CBC weekly until resolved)	1st Occurrence: <b>HOLD*</b> until platelets $\geq 100$ K <ul style="list-style-type: none"> <li>• Resume same dose</li> <li>• However, if <math>&lt; 75</math>K, reduce dose by 100 mg</li> </ul> 2nd Occurrence: <b>HOLD*</b> until platelets $\geq 100$ K <ul style="list-style-type: none"> <li>• Reduce by 100 mg/day</li> </ul>
<b>ANC &lt; 1.0 or Hg &lt; 8 g/dL</b> (Monitor CBC weekly until resolved)	<b>HOLD*</b> until ANC $\geq 1.5$ or Hg $\geq 9$ g/dL <ul style="list-style-type: none"> <li>• Reduce dose by 100 mg/day</li> </ul>
* Hold for maximum of 28 days. Discontinue if not resolved within 28 days or if dose reduction needed beyond 100 mg/day	

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### Patient Centered Activities:

- Provide [Oral Chemotherapy Education \(OCE\) Sheet](#)
- Take once daily, with or without food
- Taking at bedtime may minimize nausea
  - Moderate to high emetogenic risk per NCCN guidelines
- Advise patients of warnings:
  - Myelodysplastic syndrome/acute myeloid leukemia
  - Bone marrow suppression
  - Cardiovascular effects (hypertension, tachycardia)
  - Embryo-fetal toxicity
- Consider weekly home blood pressure and heart rate monitoring
- Recommend and ensure patient has stool softeners/laxatives as needed for constipation
- Recommend and ensure patient has home antiemetic as needed for nausea/vomiting (ex. ondansetron)
- Patient Assistance: [NCODA Financial Assistance Tool](#)

### References:

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3. National Comprehensive Cancer Network. Antiemesis. [https://www.nccn.org/professionals/physician\\_gls/pdf/antiemesis.pdf](https://www.nccn.org/professionals/physician_gls/pdf/antiemesis.pdf).
4. National Comprehensive Cancer Network. Ovarian cancer. [https://www.nccn.org/professionals/physician\\_gls/pdf/ovarian.pdf](https://www.nccn.org/professionals/physician_gls/pdf/ovarian.pdf).
5. TESARO. Niraparib incidence and management of thrombocytopenia. TESARO Response letter; 2018.
6. TESARO. Retrospective analysis of the NOVA trial to assess potential predictors for early dose modification. TESARO Response Letter; 2018.
7. Gonzalez A, Mirza MR, et al. A Prospective Evaluation of tolerability of niraparib dosing based upon baseline body weight and platelet count. *Annals of Oncology* (2018) 29 (suppl\_8): vii332- vii358.10.1093/annonc/mdy285.
8. [ZEJULA® \(niraparib\) \[package insert\]](#).

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