Can Statistical Tests Indirectly Compare Maintenance Therapies in Women With Newly Diagnosed Advanced Ovarian Cancer (OC)?

This document provides a short summary of information about this analysis comparing trials in patients with advanced ovarian cancer presented at the **2020 European Society of Gynaecological Oncology State of the Art (virtual meeting)**.

At the end of this document, there are links to websites where you can find more information about studies in advanced ovarian cancer.

Full title of presentation:

Feasibility Study of a Network Meta-Analysis and Unanchored Population-Adjusted Indirect Treatment Comparison of Niraparib, Olaparib, and Bevacizumab as Maintenance Therapies in Patients With Newly Diagnosed Advanced Ovarian Cancer

Study number:

GlaxoSmithKline (GSK) 213646

Who sponsored the study:

GSK

Why was the study carried out?

Though new treatments can improve survival in women with advanced OC, many patients will have a disease relapse.

In the PRIMA clinical trial (NCT02655016), the drug niraparib was given as a maintenance therapy (a therapy used after the primary treatment to prevent a disease relapse).

In PRIMA, niraparib improved progression-free survival (the time spent alive and without disease) in patients with advanced OC when it was given after chemotherapy.

There are no clinical trials in patients with advanced OC that compare the benefits of maintenance therapies.

Therefore, it is difficult for cancer doctors to choose the maintenance therapy that is right for their patients.

Statistical methods can be used to compare treatments that were tested in separate clinical trials. Two of these methods are network meta-analysis (NMA) and a population-adjusted indirect treatment comparison (PAIC).

In this study, the authors looked at the similarities and differences in separate trials of OC maintenance therapies to determine if these trials can be compared with the PRIMA trial using an NMA or PAIC.

About the study

Clinical trials of OC maintenance treatments could be used in these statistical comparisons if they were similar to the niraparib PRIMA trial in:

- ✓ Study design
- ✓ Patient population characteristics, such as age, disease severity, genetic mutations found in the tumour, and previous treatments
- ✓ Length, dose, and timing of treatment during disease
- ✓ Ways to measure the treatment benefits

Study results

How many studies were identified?

12 **published clinical trials** of maintenance treatments for newly diagnosed advanced OC were found. Treatments included olaparib, bevacizumab, and others

How many of these studies were similar to PRIMA?

0 **of these clinical trials** were similar enough to PRIMA to compare them statistically using an NMA

Why were these trials different from PRIMA?

- **7** had very different study designs
- **8** had different patient populations
- **9** had different ways to measure the treatment benefit

Could the PRIMA trial of niraparib and the PAOLA-1 trial of olaparib plus bevacizumab be compared using the PAIC statistical method?

A PAIC of the **PRIMA and PAOLA-1 trials** was found not to be possible because of differences in:

- patients who were allowed to take part in the studies (known as the inclusion/exclusion criteria)
- the use of neoadjuvant chemotherapy (chemotherapy given prior to surgery)
- the use of bevacizumab treatment before the trials
- the ways treatment benefits were measured

What were the main conclusions reported by the authors?

There were many differences between clinical trials that looked at maintenance treatments for patients with newly diagnosed advanced OC

Those differences meant that statistical methods could not be used to compare treatment benefits between trials

It is important to be able to compare maintenance treatments for advanced OC, but no trials have been conducted to directly compare treatments

- This study showed that indirect comparisons between treatments should be interpreted with care. These comparisons can be limited by differences across studies and should not influence patient care decisions

Where can I find more information?

The US Prescribing Information for niraparib may be found here:
https://www.gsksource.com/pharma/content/dam/GlaxoSmithKline/US/en/Prescribing_Information/Zejula/pdf/ZEJULA-PI-PIL.PDF

The EU Summary of Product Characteristics for niraparib may be found here:
https://www.ema.europa.eu/en/documents/product-information/zejula-epar-product-information_en.pdf

This plain-language summary was prepared by Fishawack Indicia Ltd., UK, part of Fishawack Health, and funded by GSK.

References*

- For information on OC:
    - Ovary: Globocan 2018. Lyon, France: International Agency for Research on Cancer, 2018. Available at: https://gco.iarc.fr/today/data/factsheets/cancers/25-Ovary-fact-sheet.pdf [last accessed Nov 2020].
- For information on PRIMA:
    - González-Martin A, et al. *N Engl J Med* 2019;381:2391.
- For information on these statistical methods:
    - Jansen JP, et al. *Value Health* 2011;14:417.
    - Hoaglin DC, et al. *Value Health* 2011;14:429.
- For information on PAOLA-1:
    - Ray-Coquard IL, et al. *N Engl J Med* 2019;381:2416.

*The full list of references for the trials identified is in the poster.