Summary of the MAGNITUDE study in patients with metastatic castration-resistant prostate cancer (mCRPC)

Background

- A standard treatment for mCRPC is abiraterone acetate with prednisone (AAP)
  - → Is adding another cancer medicine called niraparib to AAP more helpful for patients with mCRPC?
- Some patients with mCRPC have changes in certain genes that are involved in repairing DNA in the cell, a process known as homologous recombination repair (HRR)
- Cancers that have changes in HRR genes may not respond as well to treatments that are normally used
  - → Is adding niraparib to AAP more helpful for patients with these gene changes?

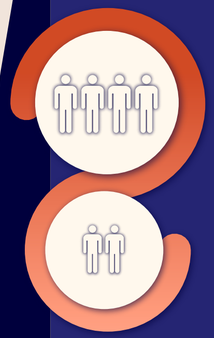
This infographic summarizes the results from the first analysis of the MAGNITUDE clinical trial data

WHO WAS INCLUDED IN THE STUDY?

670 patients with mCRPC aged 18 years or older from 26 countries were included.

Before being randomly assigned to a treatment, patients with mCRPC were tested to see if they had changes in genes related to HRR.

HRR is a normal biological process used by cells to repair damaged DNA.



423 patients included in the study had HRR gene changes **(HRR+)**

225 HRR+ patients had changes in *BRCA1* or *BRCA2* genes

BRCA1 and *BRCA2* are two of the most well-studied HRR genes.

Previous studies suggested that patients with *BRCA1* or *BRCA2* gene changes might experience the best effect from combining niraparib and AAP.

247 patients did not have HRR changes

WHAT TREATMENTS DID PATIENTS RECEIVE?

Niraparib is a cancer medicine that blocks poly ADP-ribose polymerase (PARP), a protein which repairs DNA damage. If patients with HRR gene changes are treated with niraparib, then neither PARP nor HRR can repair damaged DNA. This can lead to cancer cell death.

Patients were randomly assigned to take either

Niraparib + **AAP**

or

Placebo + **AAP**

Abiraterone acetate (AA) is a standard medicine for mCRPC. It blocks the production of a type of hormone called androgen (e.g., testosterone) which helps the cancer to grow and survive. It is taken with prednisone (P) to reduce side effects.

A placebo is a substance that looks like and is taken in the same way as the medicine being studied but does not contain any active ingredients. It is included as a comparison to the main test medicine (niraparib). Neither the patients nor the researchers knew who was taking niraparib or placebo until after the study had finished (this process is known as 'blinding' and makes sure there is no pre-judgement that might affect the results).

WHAT WERE THE RESULTS OF THE STUDY?

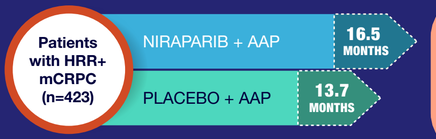
HOW EFFECTIVE WAS THE TREATMENT?

Average time to cancer progression (increased size or spread) or death

Time to symptoms of cancer worsening

Patients with mCRPC with *BRCA1* or *BRCA2* changes taking **niraparib + AAP** developed symptoms of progression or experienced worsening of symptoms **later** than those taking **placebo + AAP**

Time to start of chemotherapy

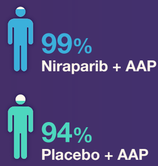


Patients with mCRPC with *BRCA1* or *BRCA2* changes taking **niraparib + AAP took longer** to start subsequent chemotherapy than those taking **placebo + AAP**

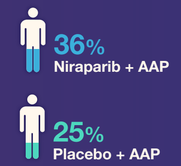
Patients without HRR gene changes did not experience any additional improvements from the addition of niraparib to AAP

WHAT WERE THE SIDE EFFECTS OF THE TREATMENT?

Percentage of patients with HRR+ mCRPC who had any side effect during treatment



Percentage of patients with HRR+ mCRPC who had at least one serious side effect



'Serious' side effects usually result in the need for medical intervention and sometimes hospitalization

More patients taking **niraparib + AAP** had side effects than those taking **placebo + AAP**, but these were manageable and consistent with the known side effects of the two medicines.

Patients taking **niraparib + AAP** most commonly had the following side effects:

- **Anemia** (low number of red blood cells)
- **Hypertension** (high blood pressure)
- **Constipation** (hard poo or difficulty pooing)
- **Fatigue** (feeling extremely tired or weak)
- **Nausea** (feeling sick)

Quality of life during treatment, as reported by patients through questionnaires, was similar for patients taking **niraparib + AAP** and those taking **placebo + AAP**.

The MAGNITUDE study enrolled patients from February, 2019 to March, 2021. Results from a second analysis, which was performed 8 months after the first analysis, support the results of this first analysis.

More information

For more information on the results of the MAGNITUDE trial, please see the complete plain language summary by scanning the QR code:

Conclusions

- In this study, patients with HRR+ mCRPC benefited more from taking niraparib + AAP compared with placebo + AAP, as they had a longer time until cancer progression/death or the need to start chemotherapy. This difference in time was longest for patients with *BRCA1 or BRCA2* gene changes
- Testing for HRR gene changes is important when deciding on whether to treat patients with mCRPC using niraparib + AAP
- Side effects in patients taking niraparib + AAP were manageable and there were no unexpected safety concerns