# Article information:

Prophylactic NAC promoted hematopoietic reconstitution by improving endothelial cells after haploidentical HSCT: a phase 3, open-label randomized trial - PMC  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9044574/>

# Article summary:

1. This phase 3, open-label randomized trial investigated the efficacy and tolerability of N-acetyl-L-cysteine (NAC) prophylaxis to reduce poor graft function (PGF) or prolonged isolated thrombocytopenia (PT) after allogeneic hematopoietic stem cell transplantation (allo-HSCT).

2. The study found that NAC prophylaxis reduced the incidence of PGF and PT at +60 days post-HSCT in patients with bone marrow endothelial cells < 0.1%.

3. NAC prophylaxis was well tolerated and may offer a potential pathogenesis-oriented therapeutic approach for patients with poor hematopoietic function.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article is generally trustworthy and reliable, as it is based on a phase 3, open-label randomized trial which is a high quality research design. The study was conducted in accordance with the Declaration of Helsinki and registered at ClinicalTrials.gov, which adds to its trustworthiness. The study also provides detailed information on eligibility criteria, randomization procedures, sample size calculation, data analysis methods, and results interpretation.

However, there are some potential biases that should be noted. Firstly, the study did not include a control group receiving no treatment or placebo treatment; this could have provided more insight into the efficacy of NAC prophylaxis compared to no treatment or placebo treatment. Secondly, the sample size was relatively small; larger sample sizes would have provided more robust results. Thirdly, the study did not provide any information on long term outcomes such as overall survival; this could have provided further insights into the efficacy of NAC prophylaxis in reducing PGF or PT after allo-HSCT. Finally, there were no blinding procedures used in this study; blinding would have reduced bias from subjective assessments by investigators or subjects regarding outcomes such as adverse events or graft function.

In conclusion, while this article is generally trustworthy and reliable due to its high quality research design and adherence to ethical standards, there are some potential biases that should be noted when interpreting its results.

# Topics for further research:

* Randomized trial design
* Declaration of Helsinki
* ClinicalTrials.gov
* Placebo treatment
* Long term outcomes
* Blinding procedures

# Report location:

<https://www.fullpicture.app/item/25baa7a4bc523f8c51f9f15c2980fd2b>