A Clinical Trial of Bomedemstat (IMG-7289) for the Treatment of Essential Thrombocythemia (ET)

This information was presented at the 2022 American Society of Hematology Annual Meeting. For more information:

What is Essential Thrombocythemia?

Essential thrombocythemia (ET) is a disease where the bone marrow makes too many platelets. These are cells that help blood clot. This usually happens in older adults and is more common in women than men.

ET is 1 of 3 rare bone marrow diseases called myeloproliferative neoplasms (MPNs). Each type of MPN affects blood cell production in different ways:

- Essential thrombocythemia (ET) is a condition of too many megakaryocytes, cells which make platelets.
- Myelofibrosis (MF) causes the bone marrow to make too many platelets and white blood cells (WBC). Scar tissue builds up in the bone marrow, and fewer red blood cells (RBC), WBC, and platelets are made.
- Polycythemia vera (PV) is a condition of too many RBC, platelets, and WBC.

In a small number of patients, ET can change into MF. In rare cases, ET can change into acute myeloid leukemia (AML).

What **happens** to the body in ET when there are too many platelets?

Common Symptoms

- Fatigue
- Bone pain
- Itching

Blood Symptoms

- Blood Clots
- Bleeding

Mutation Status:

ET is caused by genetic changes (mutations) in the DNA of bone marrow blood cells. These mutations are most common in the *CALR* and *JAK2* genes and are not inherited or passed on to children.

What is the **drug** being tested and **how does it work**?

- Bomedemstat is the investigational drug tested in this study.
- It is a capsule taken by mouth 1 time each day.
- Bomedemstat controls the activity of an enzyme called LSD1.
- LSD1 is needed for the bone marrow to make the correct amount of WBC, RBC, and platelets.

What is an investigational drug?

An investigational drug is a medication that is a possible treatment for a disease. It is not approved for use except in clinical trials.

For more information:

Phase of the clinical trial

There are several phases of clinical trials testing the safety and effectiveness of drugs. The information being shared here is from a **Phase 2** study of bomedemstat in ET.

Phase 0	Phase 1	**Phase 2**	Phase 3	Phase 4

A Phase 2 clinical trial tests the safety and effectiveness of a drug in participants with a specific condition. **For more information on clinical trials:**

Why is this study being done?

There is no cure for ET. Current treatments for ET can make the patients feel better but often lose their effectiveness and cause side effects. Imago is developing a new treatment due to the unmet needs of ET patients. Important objectives of this study include:

• **Enabling** the bone marrow to produce a normal amount of platelets • **Improving** Symptoms • **Reducing** the frequency of gene mutations

Clinicians also want to determine if bomedemstat could reduce the number of platelets without impacting the normal production of other blood cells. The results from this study will be used to help design future studies of bomedemstat in patients with ET.

Who is **participating** in this study?

The study includes 73 women and men between the ages of 42 and 92 with ET. The participants are from 7 countries.

• **All** have a platelet count of more than 450 X 10^9/L.

• **All** have been treated with at least 1 other treatment for ET that either did not work for them or was intolerable.

• **88%** of participants are known to have the *CALR* or *JAK2* gene mutations. 9% of patients are triple negative. This means they do not have a mutation in one of the 3 usual genes related to ET and other MPNs.

Is bomedemstat **safe**?

It was found that bomedemstat is generally safe for people with ET. • Most new medical issues reported by patients are mild. • The most common medical issue is dysgeusia (changes in taste). For most participants this is considered mild.

What have clinicians learned about the **effectiveness** of bomedemstat so far?

Participants continue to be treated in this study. The results below are preliminary and include information up to 18 October 2022.

What is a Treatment Response?

A treatment response is when a participant has a platelet count of 400 X 10^9/L or less without a bleeding or blood clot event.

What effect did bomedemstat have on ET?

The results for participants who took bomedemstat for at least 24 weeks are given below:

95% of participants had a treatment response

Of 28 patients that reached 48 weeks at the time of analysis, 89% had a durable response.

89%

30 participants had their frequency of mutations analyzed

67% of participants had a **decrease** in blood cells with ET mutations

All mutation types responded similarly to bomedemstat

Average hemoglobin levels were **maintained**

How did bomedemstat impact the lives of participants?

Participants rated their symptoms caused by their ET during the study. Key symptoms include fatigue, bone pain, and itching. The results for participants who took bomedemstat for at least 48 weeks of treatment are given below:

Average improvement

Bone Pain: **0.4**

Worst Fatigue: **1.1**

75%

75% (out of 12) of participants with the worst symptoms at the start of the study had an improvement in their symptom score

Where can I find more information?

As of October 2022, bomedemstat has been tested in over 200 participants with bone marrow diseases. This study has finished enrolling new participants. A larger global study in patients with ET is being planned. There are also new studies of bomedemstat planned for the treatment of other MPNs including polycythemia vera (PV) and myelofibrosis (MF) .

If you are interested in learning about these studies or becoming a participant, please visit **www.imagobio.com.**

IMAGO BIOSCIENCES

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