Treatment options for elderly or unfit patients with AML remain limited, as they are often ineligible for intensive chemotherapy, and new drug approvals are often suited to younger, fitter patients. Therefore, this month, the AML Global Portal’s focus will be on providing educational content surrounding the treatment of elderly and unfit patients with acute myeloid leukemia (AML).

Here are some of the highlights of content the AML Global Portal has recently covered on the topic:

**Venetoclax**

**What is the clinical value of new drugs in AML?**

Gert Ossenkopple, from the UMC Amsterdam, NL, and chair of the AML Global Portal spoke to us about the clinical value of new drugs for AML. He highlighted some novel drugs and emphasized that venetoclax, approved by the US FDA, is a ‘game changer’ for the treatment of unfit, elderly patients.

**Venetoclax combined with low-dose cytarabine for elderly patients with untreated AML**

This multicenter, multinational, phase Ib/II trial (NCT02287233) investigated the safety and preliminary efficacy of venetoclax, combined with low-dose cytarabine (LDAC), in untreated elderly patients with AML. The study found that the combination of venetoclax and LDAC is associated with high rates of remission, and was found to be tolerable in elderly patients. The rapid induction and durable length of remission make this combination an attractive treatment option for patient’s ineligible for intensive chemotherapy. This study led to the recent FDA approval of venetoclax.

**BCL-2 as a universal target in AML**

Marina Konopleva, from the University of Texas, Houston, US, spoke to the AML Global Portal about how BCL-2 is a universal target in AML, and how drugs targeting BCL-2 in combination with hypomethylating agents have become the new standard of care for the treatment of unfit elderly patients in the US.

**Venetoclax and other BH3 mimetics in Acute Myeloid Leukemia – current practice and future perspectives**

Michael Savona, from the Vanderbilt University Medical Center, Nashville, US, and Andrew Wei from Monash University, Clayton, AU, published an article highlighting the clinical impact of venetoclax in potential therapy combinations. They suggest the importance of understanding potential mechanisms underlying resistance to BH3 mimetics, to be able to fully utilize the benefits of venetoclax combination therapy.

**Combination drugs in myeloid disorders**
Aref Al-Kali from Mayo Clinic, Rochester, US, spoke to the AML Global Portal, expressing his surprise that currently, less than 10% of US hematologists attending ASCO 2019 were treating their elderly, unfit patients with the combination of venetoclax and hypomethylating agents or low-dose cytarabine, despite the recent approval in the US.

**Other strategies**

**Establishing precision medicine and novel molecular target therapies in Japanese patients with AML**

Despite allogeneic hematopoietic stem cell transplantation (allo-HSCT) improving the prognosis of younger patients with AML, the outcome of treatment in elderly patients remains poor. Genetic mutation profiling could influence outcomes in elderly and unfit patients, however, as most genetic profiling studies have been conducted in western countries, further studies in other ethnicities are necessary. The (HM)-SCREEN-Japan (UMIN 000035233) looks to identify elderly Japanese patients with AML, and treat targetable mutations.

**Dendritic cell-based immunotherapy for AML**

Despite complete remission (CR) being achieved through chemotherapy, many patients above the age of 65 relapse, due to the persistent and proliferation of treatment-resistant leukemic stem cells (LSCs), also known as measurable residual disease (MRD). For elderly patients, and those unfit for transplant dendritic cell-based immunotherapy could have the potential to result in improved clinical responses. A randomized trial (NCT 01686334) is currently ongoing to identify whether dendritic cell-based immunotherapy confirms its superior efficacy in a large cohort of patients.

Watch out for more content surrounding the treatment of elderly, unfit patients with AML on the AML Global Portal, or via our social channels on Facebook, Twitter and LinkedIn.