Written By: Neal Dave, PharmD
Texas Oncology

Positive Quality Intervention: Ruxolitinib (Jakafi®): Managing Treatment of Polycythemia Vera

Description: This PQI will review appropriate patient identification and management of Polycythemia Vera (PV) with the use of ruxolitinib therapy.

Background: Ruxolitinib is FDA approved for the treatment of intermediate or high-risk patients with myelofibrosis (MF). This includes patients with primary MF, post polycythemia vera MF, post-essential thrombocytopenia MF, steroid-refractory acute graft-versus-host disease in adult and pediatric patients 12 years and older, and
chronic graft-versus-host disease after failure of one or two lines of systemic therapy in adult and pediatric patients 12 years and older. One of the treatment goals for PV is to reduce the cardiovascular risk of patients. Typically, clinicians try to maintain a HCT < 45% and often a target < 42% for women.[1] One study showed that patients with a HCT in the 45-50% range had a 4 times greater risk of cardiovascular events than patients with a HCT less than 45%.[2] Proper follow up and review of CBCs are required when patients are started on hydroxyurea (HU). Dose adjustments and possibly additional phlebotomies should be considered for these patients. Identifying the proper time to switch to another therapy is important to help manage the disease. Anywhere between 20-60% of patients remain on HU even though they are not having a proper response.[3] Common treatments for PV include aspirin, phlebotomy, hydroxyurea, interferon alfa-2b, BESREMi, or a JAK2 inhibitor, ruxolitinib. HU is considered the gold standard treatment for first line high risk patients.[3] Patients that are taking HU and still have high blood counts or cannot tolerate it may benefit with treatment with ruxolitinib.

PQI Process:

- Review CBC with refill every to ensure HCT is < 45%
- Assess patients for adverse events and document in EMR
- Use the MPN-SAF total symptom score scale[4]
- If HCT > 45 or symptoms are worse:[5]
    - Low risk patients (age < 60 and no previous history of blood clots) not taking HU:
        - Consider HU (1-2 g/day in 1-3 divided doses)
    - High risk patients (age > 60 or previous history of a blood clot):
        - HU treatment ≥ 12 weeks, is still requires phlebotomies, and had intolerance or resistance to interferon alfa-2a therapy then recommend switching to second line therapy
        - Consider ruxolitinib 10 mg by mouth two times[6]

Patient-Centered Activities:[6]

- Provide Oral Chemotherapy Education (OCE) Sheet
    - Possibility of dose adjustments
    - Importance of staying hydrated
    - Infection prevention: call clinic for any fever > 100.4°F
    - Emphasize the importance for patient to report skin lesions (examine skin at baseline)
- Stress importance of adherence
- Schedule follow up calls and assess patients for adverse events and document in EMR
- Maintain adherence to treatment of secondary health conditions (high blood pressure, diabetes, high cholesterol, history of blood clots)

References:

1. National Comprehensive Cancer Network (NCCN) Guidelines for Myeloproliferative Neoplasms. www.nccn.org/patients/guidelines/mpn/38/.
2. Marchioli et al, N Engl J Med 2013; 368:22-33.
3. Griesshammer M, Gisslinger H, Mesa R. Current and future treatment options for polycythemia vera. Ann Hematol. 2015;94(6):901-910.
4. Scherber et al Blood, 14 July 2011 v118, n2.
5. Hydroxyurea [package insert].
6. Jakafi® [package insert].