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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: Common treatments for PV are aspirin, phlebotomy, hydroxyurea, interferon (not commonly used), or a JAK2 inhibitor, ruxolitinib. Hydroxyurea (HU) is considered the gold standard treatment to start with for high risk patients.[3] Patients that are taking hydroxyurea and still have high blood counts or cannot tolerate it may benefit with treatment with ruxolitinib (see supplemental information section regarding treatment rationale).

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]
- See Risk Stratification table in supplemental information section as needed
- If HCT > 45 or symptoms are worse:
    - Low risk patients not taking HU:
        - Consider recommending HU (1-2 g/ day in 1-3 divided doses)
    - High risk patients:
        - If patient has been on HU for longer than 12 weeks and is still requires phlebotomies then recommend possibly switching to second line therapy
        - Ask prescriber if they want to consider ruxolitinib 10 mg by mouth two times

Patient Centered Activities:

- Provide Oral Chemotherapy Education (OCE) sheet
- Provide education:
    - Laboratory monitoring will be required with refills
    - Possibility of dose adjustments
    - Importance of staying hydrated
    - Infection prevention: call clinic for any fever > 100.4 degrees F
    - Monitoring skin for patients on ruxolitinib:
        - Important to notice all skin lesions (examine skin at baseline)
- Make note of any new lesions that arise while on therapy
- Stress importance of adherence
- Schedule follow up calls
- Maintain adherence to treatment of secondary health conditions (high blood pressure, diabetes, high cholesterol, history of blood clots)

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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, January 3, 2013.
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.

Supplemental Information:

Risk Stratification:

Low Risk PCV patient characteristics:	Age < 60 and no previous history of blood clots
High Risk PCV patient characteristics:	Age > 60 or previous history of a blood clot

Treatment Goals Rationale:

One of the treatment goals for PCV is to reduce the cardiovascular risk of patients. Typically, clinicians try to maintain a HCT < 45% and often a target < 42% for women.[1] A study published in the NEJM 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. 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 hydroxyurea even though they are not having a proper response.[3]**