**Flow diagram B**

**MCV greater than 105**

- **Hgb is less than 13 gm/dL**
  - MCV greater than 105
  - Reticulocyte count, vitamin B12, folate, creatinine
  - Is folate less than 3.3 ng/mL?
    - Yes
      - Folate deficiency
    - No
      - *Vitamin B12 less than or equal to 300 pg/mL*
        - Yes
          - Vitamin B12 deficiency
          - Obtain serum methylmalonic acid
          - MMA greater than 0.4 Mmol/L
            - Yes
              - Vitamin B12 deficiency
            - No
              - See evaluation for vitamin B12 greater than 300 pg/mL
  - No
    - Is vitamin B12 less than 200 pg/mL?
      - Yes
        - Vitamin B12 deficiency
      - No
        - Reticulocyte count elevated

- Is there associated leukopenia, thrombocytopenia or ovalocytosis?
  - Yes
    - Consider hematology consult to rule out plasma cell dysplasia or other primary marrow process if clinically indicated.
  - No
    - Creatinine greater than 1.3 mg/dL or eGFR less than 60 mL/min?
      - Yes
      - No
        - See evaluation for vitamin B12 greater than 300 pg/mL.