Clinical Nursing Care and Assessment of Chronic Kidney Disease Patients with Anemia Receiving Erythropoiesis Stimulating Agents (ESAs) in the Ambulatory Care Setting

A. **EFFECTIVE DATE:**
   April 7, 2021

B. **PURPOSE:**
   1. To establish a protocol for managing patients receiving long-term Epoetin (Erythropoiesis Stimulating Agents (ESAs) in the Ambulatory Care Setting.

   2. To provide a safe and appropriate procedure for nursing assessment, monitoring and documentation of symptoms of Chronic Kidney Disease (CKD) patients receiving ESAs in the Ambulatory Care setting.

   3. To establish a protocol for laboratory monitoring of patients receiving ESA in the Ambulatory Care Setting.

C. **POLICY:**
   To provide guidance for anemia management in chronic kidney disease patients

D. **SCOPE:**
   This policy will encompass all patients being treated in the ambulatory Nephrology clinic setting.

E. **DEFINITIONS:**
   Epoetin (Erythropoiesis Stimulating Agents ESAs)

F. **MATERIAL(S) NEEDED:**
   None

G. **PROCEDURE:**
   1. RN administering the ESA (Epoetin) for patients receiving long-term ESA medications therapy must verify current order for both medication and laboratory monitoring as follows:
      a. Verification of a current provider order for administration of ESA medication (Epoetin) in the Ambulatory Care setting. Provider order for ESA medications (Epoetin) injection MUST include the following information: correct patient, medication name, dose, route and timeframe (frequency/recurrent) and administration parameters.
      
      b. Verification of a current Provider recurring order for required lab studies including Hemoglobin (Hg), Iron (Fe), Total Iron Binding Capacity (TIBC) and Ferritin. Recurring orders for labs will include frequency of monitoring of each specified lab as indicated below; unless otherwise a specific direction by the provider:
         a. Hemoglobin once a month.
         b. Iron (Fe), Ferritin, and Total Iron Binding Capacity (TIBC), TSAT at least once every 3 months. Test iron status more frequently when initiating or increasing ESA dose, when there is blood loss,
when monitoring response after a course of IV iron, and in other circumstances where iron stores may become depleted.

2. Administration parameters include:
   a. Verified orders for medication and lab studies as stated above
   b. Lab values / results within specific timeframe per Epoetin Protocol: Hemoglobin (Hg), Iron (Fe), Ferritin, Total Iron Binding Capacity (TIBC) and TSAT to ensure that lab studies are being drawn and interpreted in a timeframe according to protocol or specific Provider order.
   c. Lab value range for administration / hold parameters.
   d. Blood pressure monitoring parameters to hold Epoetin.

3. Nursing Visits will include the following documented in the patient’s record:
   a. Height, weight in kilogram (Kg), Blood Pressure & Pulse
   b. Medication review
   c. Edema Assessment
   d. Auscultation of lung sounds assessment
   e. Assessment for Epoetin (ESA) medication side effects

4. Provider should be notified if the following labs and blood pressure are outside the reference range below; unless otherwise a specific direction by the provider to the administrating RN.
   a. Hemoglobin (Hb) Level * > 11
   b. Transferrin Saturation (TSAT) < 20%
   c. Ferritin >1200
   d. Systolic blood pressure > 170 or diastolic blood pressure > 90

- 2012 recommendations: For most non-dialysis CKD patients who are treated with ESAs, maintain Hb levels between 10 and 11.5 g/dL using the lowest possible ESA dose. Do not target Hb concentration >13 g/dL. (KDIGO)

H. ATTACHMENTS :
None

I. REFERENCES :
KDIGO Clinical Practice Guideline for Anemia in Chronic Kidney Disease, 2012

J. SEARCH WORDS :
Chronic renal disease treatments, ESA

K. ENFORCEMENT:
Violations of this policy or associated procedures may result in appropriate disciplinary measures in accordance with University By-Laws, General Rules of Conduct for All University Employees, applicable collective bargaining agreements, the University of Connecticut Student Code, other applicable University Policies, or as outlined in any procedures document related to this policy.

L. STAKEHOLDER APPROVALS :
On File
M. COMMITTEE APPROVALS:
None

N. FINAL APPROVAL:

1. Andrew Agwunobi, MD (Signed) ____________________________ 04/13/2021
   Andrew Agwunobi, MD, MBA                                   Date
   UConn Health Chief Executive Officer

2. Anne Horbatuck (Signed) ____________________________ 04/07/2021
   Anne D. Horbatuck, RN, BSN, MBA                                Date
   Clinical Policy Committee Co-Chair

3. Scott Allen, MD (Signed) ____________________________ 04/09/2021
   Scott Allen, MD                                          Date
   Clinical Policy Committee Co-Chair

4. Caryl Ryan (Signed) ____________________________ 04/08/2021
   Caryl Ryan, MS, BSN, RN                                    Date
   VP Quality and Patient Services & Chief Nursing Officer

O. REVISION HISTORY:
   Date Issued: May 2014
   Date Revised: April 2021
   Date Reviewed: July 2016, September 2019