



Contra Costa Regional Medical Center
and Health Centers

Delivery System Reform Incentive Payments
(DSRIP) Plan
Yearend Report on DY 7 Achievements
Submitted September 30, 2012

Attachments A-F

ERYTHROPOIETIN STIMULATING AGENTS (ESAs)**I. PURPOSE:**

1. To ensure patient safety by monitoring ESA's response based upon defined parameters per policy. To maintain patients' hemoglobin (Hgb) in the approximate target range of 9-10 g/dL, in accordance with FDA recommendations and the erythropoietin stimulating agents' (ESA) package inserts
2. To ensure patient safety in medication management
3. To educate patients regarding chronic kidney disease (CKD), medication management and lifestyle modifications

Language of BBW for Chronic Kidney Disease:

- In controlled trials, patients experienced greater risks for death, serious adverse cardiovascular reactions, and stroke when administered erythropoietin-stimulating agents (ESAs) to target a hemoglobin level of greater than 11 g/dL.
- No trial has identified a hemoglobin target level, ESA dose, or dosing strategy that does not increase these risks.
- Use the lowest ESA dose sufficient to reduce the need for red blood cell (RBC) transfusions [see Warnings and Precautions in package insert].

Facilitators: Pharmacists, Nurses**Mentors:** Nephrologists, select IM Physicians**II. REFERENCES:**

- Package Insert
- California Pharmacy Law (Article 3 of the Business & Professions Code – Chapter 9, Division 2, Section 4052, 4052.1, 4052.2)

III. POLICY:

ESA's use is monitored to assure optimal patient safety. This protocol is managed by Pharmacists and Nurses under the supervision and guidance of selected providers in the Internal Medicine Dept as well as Nephrology. Internal Medicine and Nephrology have approved the protocol and are aware that a patient referral constitutes authorizing the pharmacist to adjust the dosage regimen per protocol.

IV. PROCEDURE:

1. Nephrologist, Internal Medicine (IM) attending, or primary care providers identifies patient for referral. By referring the patient, the provider is authorizing the pharmacist to adjust the dosage regimen, per protocol.
2. Starting dose and frequency is determined by nephrologist or IM attending.
3. Patient is given medication guide by the provider at the clinic
4. All information sent to Inpatient Pharmacy Department at Martinez
5. Lab slip given to patient by the nurse

6. Baseline iron studies, B12 & Folate (when MCV above normal) ordered by the provider; if abnormal, the provider is to evaluate/treat anemia prior to ESA administration
7. Provider writes prescription and transmits to the appropriate pharmacy
8. Pharmacist ensures appropriate follow-up scheduled
9. Prescription filled

Patient Inclusion Criteria:

1. Anemia secondary to non-dialysis Chronic Kidney Disease (CKD)
2. Hemoglobin less than 9-10 g/dL(per discretion of attending)
3. Iron stores at target (Iron sat > 20%, Ferritin > 100 ng/ml)

Patient Exclusion Criteria:

1. Patients with active malignancy and/or receiving chemotherapy
2. Severe allergic reaction to ESA
3. Uncontrolled hypertension (>160/95 mmHg)
4. Pure red cell aplasia that begins after treatment with ESA
5. Evidence of anemia secondary to other cause (nutritional deficiency, blood loss, etc)
6. History of stroke per provider's assessment that precludes patients from enrollment in the monitoring program (see referral form)

Monitoring:

1. Pharmacist:
 - a. Contacts patient after receiving referral for introduction/orientation to program, using standardized guidelines
 - b. Contacts patient the Thurs or Friday prior to Next injection to send them to lab
 - c. Checks CBC at least 2 days prior to each dose (e.g., on Monday or Tuesday)
 - d. Adjust the dose per policy on Tuesday.
 - e. All questions will be addressed to selected Internal Medicine provider(s) [i.e., Oliver Graham, MD and Gabriella Sullivan, MD] /OR nephrologists on Wednesdays (renal clinic schedule: on 1st and 3rd Wed morning in MTZ and PHC, respectively)
 - f. Orders Epogen/ESA dose in computer system
 - g. The dose will be administered by the nurse on Thursdays as scheduled, unless patient received training by the nurse educator to self inject/administer
 - h. Checks CBC's every 2 weeks until stable x 4, then, checked every month. If patient has not obtained CBC prior to visit, may consider holding dose until lab results become available. Lack of compliance per patient would constitute an immediate phone call to the provider (IM attending or the nephrologist) for further discussion/decision making
 - i. Insures referred patient has recent (i.e. within 3 months) Hgb/Hct, iron, B12, folate (when MCV is above normal), ferritin and percent transferrin saturation before the initial visit

- j. Checks iron studies every 3 months if clinically indicated (e.g., changes in iron therapy, patient adherence, or response to ESA). The target goals are:
 - Ferritin > 100 ng/mL
 - TSAT > 20%
 - k. Documents telephone consults and follow-up, as well as prescription authorization in pharmacy's internal monitor. Questions should be directed to covering physician as outlined above
 - l. Adjusts the ESA and oral iron therapy per policy, pursuant to California Pharmacy Law (Article 3 of the Business & Professions Code – Chapter 9, Division 2, Section 4052, 4052.1, 4052.2)
 - m. Orders/renews ESA and transmits to the appropriate pharmacy
 - n. Communicates with patient, as appropriate
 - o. Communicates adjusted dose to Nursing
 - p. Orders iron therapy, if indicated:
 - i. Ferrous gluconate 325mg orally up to 2 times daily based on current iron studies and patient tolerability to adverse effects, or instructions to patient to follow instructions on OTC packaging.
 - ii. Adequate fiber and activity to be encouraged to prevent constipation
 - iii. Docusate sodium 100mg to be prescribed if stool softener indicated for constipation from oral iron therapy, or instruct patient to follow instructions on OTC packaging
2. Nursing staff: Patient follows up in treatment nurse clinic on Thursdays and blood pressure is checked by the nurse; if BP < 160/95, ESA administered. If BP is out of range, the nurse is to call the attending/provider.

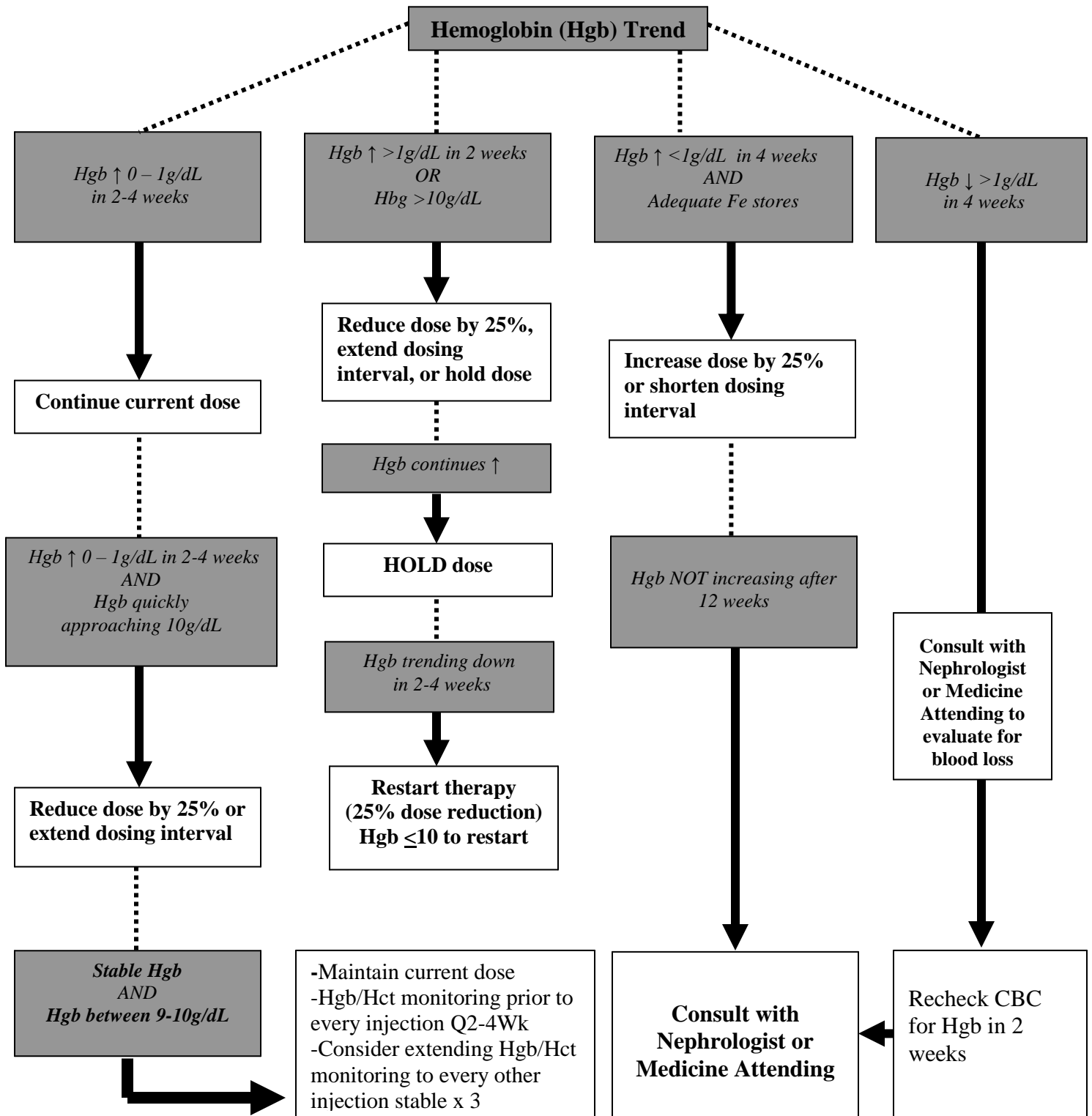
V. FORMS:

- 1) Referral form
- 2) Med Guide
- 3) Lab ordersheet

VI. RESPONSIBILITY:

Director of Pharmacy Services,
Internal Medicine
Nephrology Group

• MAINTENANCE AND TITRATION DOSING:



- **EPOETIN ALFA AND DARBEPOETIN ALFA CONVERSION:**

Epoetin alfa WEEKLY dose (Units)	Darbepoetin alfa WEEKLY dose (mcg)	Darbepoetin alfa® Q2WEEK dose (mcg)
<1,500	6.25 or (continue Epoetin alfa)	12.5
1,500 – 2,499	6.25	12.5
2,500 – 4,999	12.5	25
5,000 – 10,999	25	40
11,000 – 17,999	40	60
18,000 – 33,999	60	100
34,000 – 89,000	100	200
≥ 90,000	200	--

DOSAGE FORMS AVAILABLE: *

- Darbepoetin alfa
 - *Prefilled syringes (needle cover contains latex):* 25mcg/0.42mL; 40mcg/0.4mL; 60mcg/0.3mL; 100mcg/0.5mL; 150mcg/0.3mL, 200mcg/0.4mL, 300mcg/0.6mL, 500mg/mL.
 - *Single-dose vials:* 25mcg/mL, 40mcg/mL, 60mcg/mL, 100mcg/mL, 150mcg/0.75mL, 200mcg/mL, 300mcg/mL
- Epoetin alfa
 - *Preservative free vials:* 2000 units/mL(1mL); 3000 units/mL (1mL); 4000 units/mL (1mL); 10,000 units/mL (1mL); 40,000 units/mL (1mL)
 - *With Preservative vials:* 10,000 units/mL (2mL); 20,000 units/mL (1mL)

ADVERSE EVENTS INVOLVING ESA'S SHOULD BE REPORTED IN 'SERS' AND TO THE FDA MEDWATCH PROGRAM:

<https://www.accessdata.fda.gov/scripts/medwatch/medwatch-online.htm>

Reviewed/revised: 12/2011

ERYTHROPOIETIN STIMULATING AGENTS

Clinical Pharmacist Competency Assessment

Pharmacist's name _____	Date: _____
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1. Four weeks ago, patient A.J. was initiated on Epoetin alfa 10,000 units SQ every 2 weeks. Today, the patient's Hgb is 8g/dL. How would you proceed (baseline 9 g/dL)?

2. Two weeks later, the patient's Hgb is 11g/dL (an elevation from 8 g/dL, being the baseline). How would you proceed?

3. You retest the patient in one week, and the Hgb is now 11.5g/dL (up from 11g/dL) . How would you proceed?

4. Two weeks later from the above date, the Hgb is 9g/dL (from baseline 11.5g/dL). How would you proceed?

5. If the patient's Hgb decreases more than 1g/dL in 4 weeks, how would you proceed?

**CONTRA COSTA HEALTH SERVICES
CONTRA COSTA REGIONAL MEDICAL CENTER
CONTRA COSTA HEALTH CENTERS**

ERYTHROPOEITIN CLINIC REFERRAL FORM

PATIENT INFORMATION

Address _____ City _____ State _____ Zip _____

Home Phone _____ Work Phone _____ Mobile Phone _____

Primary Language _____ Care giver or Secondary contact person Phone _____

Medication Allergies and Reactions _____

Primary Provider _____ Primary Care Site _____

FAX THIS FORM TO INPATIENT PHARMACY DEPARTMENT AT 925-370-5269. PHARMACY PHONE:925-370-5668

*****NOTE: If answered YES to any of the below questions, patient is NOT eligible for referral*** (circle one)**

Does the patient have:

1. Active malignancy and/or receiving chemotherapy	Yes	No
2. History of stroke/CVA that precludes usage of ESA's	Yes	No
3. Prior severe allergic reaction to ESA	Yes	No
4. Prior treatment with ESA leading to pure red cell aplasia or severe anemia	Yes	No
5. Uncontrolled hypertension (uncontrolled Hypertension is BP >160/95 mmHg)	Yes	No
6. Evidence of anemia secondary to other cause (nutritional deficiency, blood loss, etc.)	Yes	No

Baseline Laboratory Studies (must be recent within last 3 months)

Hgb <9-10 g/dL	Transferrin Sat >20%
Ferritin >100 ng/mL	B12/Folate: WNL

Initial Starting Dose per nephrologist or weight-based

Actual Body Weight (kg) _____

**Epoetin alpha
dose (units)**

- 10,000 units SQ once every 2 weeks
- 20,000 units SQ once every 2 weeks
- (round to nearest 500 units, if and when possible or applicable)
- Other dose _____ (state the specific dose and frequency in the blank space)

REFERRING PROVIDER-By signing below, the provider is authorizing pharmacy department to manage epoetin monitoring and dosing.

Provider has discussed risks versus benefits of ESA treatment with patient. Patient has agreed to ESA therapy, and Medication Guide has been provided for the above patient.

Referred to: ESA monitoring program

Referred by _____ Referral Date & Time _____

Provider Signature _____ Pager _____ Phone _____

**CONTRA COSTA REGIONAL MEDICAL CENTER
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INSERVICE DOCUMENTATION

In-service Title: *FOUR EYE ASSESSMENT FOR PRESSURE ULCER*

In-service Date: *Ongoing* Time: *0640, 0700, 0720
1410, 1430, 1450*

Inservice Educator: _____

Reason for Inservice: (Why is this inservice needed):

Ongoing inservice for Nurses and Wound Care Unit champions

In-service Description (What is the inservice going to cover):

- 1. CCRMC Pressure Ulcer Policy*
- 2. Staging of Pressure Ulcers (1-4)*
- 3. Elements of a Thorough Skin Assessment*
- 4. Four Eye Audit Tool*
- 5. Shift Change Assessment by primary nurse and charge nurse*
- 6. Documentation – audit form and ccLink*

In-service Objectives – After completion of this inservice the participant will be able to:

- 1. promote patient safety through pressure ulcer prevention activities.*
- 2. describe content of facility policy related to pressure ulcer identification and management and best practices related to pressure ulcer assessment and care*
- 3. demonstrate the proper use of the Four Eye Audit Tool and documentation of pertinent information in the patient's record (ccLink charting)*
- 4. demonstrate understanding of the intershift pressure ulcer assessment communication between the primary nurse and the unit charge nurse*
- 5. demonstrate an understanding of the elements for pressure ulcer assessment and staging of pressure ulcers.*

In-service Evaluation (How will you know if participants are able to meet objectives):

*Demonstration with return demonstration
Written assessment tool*



Every Shift Skin Assessment Audit

Auditor's Name: _____

Role: _____

*Perform audit on each patient with a Braden score of less than or equal to 13.

Unit Location	Date of Audit	MR#	Braden Score	Interventions Documented	Appropriate Intervention		Observed Intervention	
					Yes	No	Yes	No

DSRIP HAPU PREVENTION IMPROVEMENT PROJECT

Plan: Development of Unit HAPU Prevention Champions to support efforts to decrease Hospital acquired Pressure Ulcers.

Purpose: The purpose of the Unit HAPU Prevention Champion Program is to empower nursing personnel at the unit level with education, tools, and direction to prevent HAPU.

Method: Nurse Program Managers identified two nurses from each Nursing Unit to participate in the program. The Unit HAPU Prevention Champion Program will begin with two full days of education in May 2012. Participants will receive monthly education thereafter. Quarterly facility education program will be scheduled in May, September and December 2012 for nursing and other direct care at the unit level.

Unit HAPU Prevention Champion:

Characteristics of a Unit Pressure Ulcer Champion

1. Is proficient in the use of the Braden Scale Assessment and in the determination of pressure ulcer stages and interventions;
2. Is knowledgeable about the equipment, materials and resources available at CCRMC for the prevention and treatment of pressure ulcers;
3. Is well versed in hospital policy related to pressure ulcers including applicable recording forms, order sets and use of digital camera for pressure ulcer recording;
4. Demonstrated understanding of the use of the CALNOC Observation and Inspection Worksheet;
5. Understands principles of data collection and how data is used to plan improvement in patient care;
6. Demonstrated knowledge and skill in teaching pressure ulcer prevention to patients and families;
7. Demonstrated proficiency in the documentation of care and in the development of a patient plan of care;
8. Utilizes the patient white board to help the patient/family identify and set goals of pressure ulcer prevention and/or improvement;
9. Has excellent rapport with other staff members;
10. Has the ability to coach and mentor other staff members on pressure ulcer prevention, identification and interventions;
11. Utilizes handoff communication effectively when a patient is transferred or discharge from the unit.

Responsibilities of a Unit HAPU Prevention Champion:

- Data Collection
- Resource for pressure ulcer assessment and care of the skin
- Encourage unit compliance with pressure ulcer goals
- Ensure that resource/educational materials are current and available on the unit in collaboration with the unit Educator, Nurse Program Manager, and Quality Manager
- Encourages active participation of unit staff in educational offerings and opportunities
- Reviews data with NPM
- Attends the DSRIP HAPU meeting monthly to share information and make recommendations for improvement
- Facilitates wound prevalence study data collection every month
- Maintains Display Board on wound/pressure ulcer data, progress and education

Training Requirements of a Unit HAPU Prevention Champion

- Attends initial 16 hour training and monthly 2 hour updates related to pressure ulcers
- Demonstrates competency in pressure ulcer theory and practice
- Utilizes and demonstrates principles of mentoring and coaching with unit staff for the prevention and treatment of pressure ulcers
- Attends weekly unit staff meetings and provides updates and information to unit staff on pressure ulcer project status
- Participates in the planning for quarterly facility pressure ulcer training

Education: Initial Training

The components of Champion education will begin with discussion about the core responsibilities of a Unit Skin Champion relative to the DSRIP HAPU Improvement Project and project expectations. The presentation will emphasize a nursing-driven process with emphasis on pride of practice, best practice, and patient/family satisfaction.

The clinical education will focus on teaching skin as an organ identifying the etiology and risk factors that predispose patients to develop pressure ulcers and interventions to minimize risk. The training will build upon the nurse's knowledge of skin assessment using the Braden Scale, staging of pressure ulcers using the NAUPA Guidelines, and selection of appropriate surfaces will be reinforced. Champions will be taught to develop and implement an individualized plan of skin care and to accurately document pertinent data.

The concept of SKIN bundle (SKIN Risk Alert Reminder to Nurses) will be introduced and the nurses will assist in defining and formalizing the SKIN bundle elements utilized at CCRMC. Principles of coaching and mentoring will be introduced and reinforced through self-directed ELearning lessons.

Ongoing Unit and Unit HAPU Prevention Champion Training and Reinforcement

Unit HAPU Prevention Champion will receive periodic training in skin care assessment, documentation, and pressure ulcer prevention. Educational opportunities for improvement will be identified from CalNOC reviews and risk management data. The training will empower the Unit Champions to provide education to unit staff through real time educational opportunities.

Resources

Unit pressure ulcer manuals will be updated to include standardized and current materials with educational guides for pressure ulcer treatment. Products and equipment available at CCRMC as well as information on how to access will be included in the manual. A project board will be available for the Unit HAPU Prevention Champion to post relevant training materials and CalNOC survey data.

Educational opportunities will be posted for self-directed staff education. Unit HAPU Prevention Champions and other unit personnel are encouraged to take a 30 hour self-directed education program entitled "Wound Care Essentials: Practice Principles". Continuing education credits are available for this course. Nurses may contact Barbara Simmons, Education & Training Specialist for information on this course.

Human resources include members of the DSRIP HAPU Prevention Improvement Project, the Professional Development Department and Educators, Nurse Program Managers and Quality Managers.