

Aranesp® (darbepoetin alfa) (Subcutaneous/Intravenous)

NON-DIALYSIS

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I. Length of Authorization

- Coverage will be provided for 45 days and may be renewed.

II. Dosing Limits

A. Quantity Limit (max daily dose) [NDC unit]:

- 10 mcg; 25 mcg; 40 mcg; 60 mcg; 100 mcg; 150 mcg; 200 mcg: 1 vial or prefilled syringe up to every 7 days
- 300 mcg: 1 vial or prefilled syringe up to every 14 days (MPN may be as frequent as every 7 days)
- 500 mcg: 1 vial or prefilled syringe up to every 14 days

B. Max Units (per dose and over time) [HCPCS Unit]:

- MDS (J0881 only): 500 billable units every 14 days
- MPN (J0881 only): 300 billable units every 7 days
- CKD (Non-Dialysis Patients):
 - Initial: 100 billable units every 14 days
 - Maintenance: 600 billable units every 28 days
- Chemotherapy-induced: 600 billable units every 21 days

III. Initial Approval Criteria ^{1,4,5}

Coverage is provided in the following conditions:

- Patient is at least 18 years of age (unless otherwise specified); **AND**
- Initiation of therapy Hemoglobin (Hb) < 10 g/dL and/or Hematocrit (Hct) < 30%; **AND**

Universal Criteria ^{1,3,16}

- Lab values are obtained within 30 days of the date of administration (unless otherwise indicated); **AND**
- Patient has adequate iron stores as demonstrated by serum ferritin ≥ 100 ng/mL (mcg/L) and transferrin saturation (TSAT) $\geq 20\%$ (measured within the previous 3 months for renewal)*; **AND**
- Other causes of anemia (e.g. hemolysis, bleeding, vitamin deficiency, etc.) have been ruled out; **AND**
- Patient does not have uncontrolled hypertension; **AND**

Anemia Secondary to Myelodysplastic Syndrome (MDS) ‡^{2,4}

- Endogenous serum erythropoietin level of ≤ 500 mUnits/mL; **AND**
- Patient has lower risk disease (*i.e., defined as IPSS-R [Very Low, Low, Intermediate], IPSS [Low/Intermediate-1], WPSS [Very Low, Low, Intermediate]*); **AND**
- Patient has symptomatic anemia

Anemia Secondary to Myeloproliferative Neoplasms (MPN) - Myelofibrosis ‡^{2,5}

- Endogenous serum erythropoietin level of < 500 mUnits/mL

Anemia Secondary to Chemotherapy Treatment †¹⁻³

- Patient is receiving concomitant myelosuppressive chemotherapy; **AND**
- Patient's chemotherapy is not intended to cure their disease (*i.e., palliative treatment*); **AND**
- There are a minimum of two additional months of planned chemotherapy

Anemia Secondary to Chronic Kidney Disease (Non-Dialysis Patients) †^{1,16}

- Patient at least 1 month of age

† FDA approved indications; ‡ Compendium recommended indications

IV. Renewal Criteria^{1,4,5}

Coverage can be renewed based upon the following criteria:

- Patient continues to meet universal and other indication-specific relevant criteria identified in section III; **AND**
- Previous dose was administered within the past 60 days; **AND**
- Anemia response compared to pretreatment baseline; **AND**
- Absence of unacceptable toxicity from the drug. Examples of unacceptable toxicity include: pure red cell aplasia, severe allergic reactions (anaphylaxis, angioedema, bronchospasm, etc.), severe cardiovascular events (stroke, myocardial infarction, congestive heart failure, thromboembolism, etc.), uncontrolled hypertension, seizures, increased risk of tumor progression/recurrence in patients with cancer, severe cutaneous reactions (erythema

multiforme, Stevens-Johnson Syndrome [SJS]/Toxic Epidermal Necrolysis [TEN], etc.), etc.;
AND

Anemia Secondary to Myelodysplastic Syndrome (MDS):

- Hemoglobin (Hb) < 12 g/dL and/or Hematocrit (Hct) < 36%

Anemia Secondary to Myeloproliferative Neoplasms - Myelofibrosis

- Hemoglobin (Hb) < 10 g/dL and/or Hematocrit (Hct) < 30%

Anemia Secondary to Chemotherapy Treatment

- *Refer to Section III for criteria*

Anemia Secondary to Chronic Kidney Disease:

- **Pediatric patients:** Hemoglobin (Hb) < 12 g/dL and/or Hematocrit (Hct) < 36%
- **Adults:** Hemoglobin (Hb) < 11 g/dL and/or Hematocrit (Hct) < 33%

* Intravenous iron supplementation may be taken into account when evaluating iron status

- Functional iron deficiency (i.e., adequate iron stores with an insufficient supply of available iron) may occur in patients with chronic diseases, cancer, and/or in those currently receiving ESAs.
- Iron is not generally recommended in anemic patients with a Ferritin >500 ng/mL
- Anemic patients with a Ferritin ≤500 ng/mL AND TSAT <50% may derive benefit from IV iron therapy in conjunction with ESA

V. Dosage/Administration ^{1,3-5,7,17}

Indication	Dose
Anemia due to myelosuppressive chemotherapy§	<p>Initial Dose: 2.25 mcg/kg subcutaneously every 7 days</p> <p>-OR- 500 mcg subcutaneously every 21 days</p> <p>Maximum Dose: May increase up to 4.5 mcg/kg subcutaneously every 7 days for insufficient response</p>
Anemia due to CKD-Not on dialysis§	<p>Initial Dose in Adult and Pediatric Patients: 0.45 mcg/kg intravenously or subcutaneously every 28 days</p> <p>-OR- 0.75 mcg/kg intravenously or subcutaneously every 14 days</p> <p>Maximum Dose: Adult patients: May increase to a maximum dose of 600 mcg every 28 days Pediatric patients: Dose will not exceed maximum initial dosing indicated above</p>
Anemia due to MDS§	<p>Initial Dose: 150 to 300 mcg subcutaneously every other week</p>

	<p><u>Maximum Dose:</u> May increase up to 500 mcg every other week</p>
Anemia due to myeloproliferative neoplasms (MPN)§	<p><u>Initial Dose:</u> 150 mcg subcutaneously every 7 days</p> <p><u>Maximum Dose:</u> May increase up to 300 mcg every 7 days</p>
<p>§</p> <ul style="list-style-type: none"> – For patients with CKD: <ul style="list-style-type: none"> ➢ Dose increases of 25% can be considered if after 4 weeks of initial therapy the hemoglobin has increased less than 1 g/dL and the current hemoglobin level is less than the indication specific level noted above. ➢ Dose decreases of 25% or more can be considered if the hemoglobin rises rapidly by more than 1 g/dL in any 2-week period. ➢ Dose and frequency requested are the minimum necessary for the patient to avoid RBC transfusions. ➢ Avoid frequent dose adjustments. Do not increase the dose more frequently than once every 4 weeks; decreases can occur more frequently. ➢ If patients fail to respond over a 12-week dose escalation period, further dose increases are unlikely to improve response and discontinuation of therapy should be considered. – For patients with MDS: <ul style="list-style-type: none"> ➢ After 3 to 4 months of therapy, if there is no response as measured by at least a 1.5 g/dL increase in hemoglobin or a decrease in RBC transfusions, discontinuation of therapy should be considered. – For patients with MPN: <ul style="list-style-type: none"> ➢ After 3 months of therapy, if there is no response as measured by at least a 2 g/dL increase in hemoglobin or a decrease in RBC transfusions, discontinuation of therapy should be considered. – For patients on Cancer Chemotherapy: <ul style="list-style-type: none"> ➢ After 8 weeks of therapy, if there is no response as measured by hemoglobin levels or if RBC transfusions are still required or following completion of a chemotherapy course discontinue therapy. 	

VI. Billing Code/Availability Information

HCPCS code:

- J0881 – Injection, darbepoetin alfa, 1 microgram (non-ESRD use) = 1 billable unit

NDC:

Single-dose Vial		Single-dose Prefilled Syringe	
<i>1 Vial/Pack, 4 Packs/Case</i>		<i>1 Syringe/Pack, 4 Packs/Case</i>	
200 mcg/1 mL	55513-0006-xx	200 mcg/0.4 mL	55513-0028-xx
300 mcg/1 mL	55513-0110-xx	300 mcg/0.6 mL	55513-0111-xx
		500 mcg/1 mL	55513-0032-xx
<i>4 Vials/Pack, 10 Packs/Case</i>		<i>4 Syringes/Pack, 10 Packs/Case</i>	
25 mcg/1 mL	55513-0002-xx	10 mcg/0.4 mL	55513-0098-xx
40 mcg/1 mL	55513-0003-xx	25 mcg/0.42 mL	55513-0057-xx
60 mcg/1 mL	55513-0004-xx	40 mcg/0.4 mL	55513-0021-xx
100 mcg/1 mL	55513-0005-xx	60 mcg/0.3 mL	55513-0023-xx
		100 mcg/0.5 mL	55513-0025-xx
		150 mcg/0.3 mL	55513-0027-xx

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VII. References

1. Aranesp [package insert] Thousand Oaks, CA; Amgen Inc; January 2019. Accessed April 2021.
2. Referenced with permission from the NCCN Drugs & Biologics Compendium (NCCN Compendium®) darbepoetin alfa. National Comprehensive Cancer Network, 2021. The NCCN Compendium® is a derivative work of the NCCN Guidelines®. NATIONAL COMPREHENSIVE CANCER NETWORK®, NCCN®, and NCCN GUIDELINES® are trademarks owned by the National Comprehensive Cancer Network, Inc. To view the most recent and complete version of the Compendium, go online to NCCN.org. Accessed April 2021.
3. Referenced with permission from the NCCN Drugs & Biologics Compendium (NCCN Compendium®) Hematopoietic Growth Factors – Management of Cancer-and Chemotherapy-Induced Anemia Version 2.2021. National Comprehensive Cancer Network, 2021. The NCCN Compendium® is a derivative work of the NCCN Guidelines®. NATIONAL COMPREHENSIVE CANCER NETWORK®, NCCN®, and NCCN GUIDELINES® are trademarks owned by the National Comprehensive Cancer Network, Inc. To view the most recent and complete version of the Compendium, go online to NCCN.org. Accessed April 2021.
4. Referenced with permission from the NCCN Drugs & Biologics Compendium (NCCN Compendium®) Myelodysplastic Syndrome Version 3.2021. National Comprehensive Cancer Network, 2021. The NCCN Compendium® is a derivative work of the NCCN Guidelines®. NATIONAL COMPREHENSIVE CANCER NETWORK®, NCCN®, and NCCN GUIDELINES® are trademarks owned by the National Comprehensive Cancer Network, Inc. To view the most recent and complete version of the Compendium, go online to NCCN.org. Accessed April 2021.
5. Referenced with permission from the NCCN Drugs & Biologics Compendium (NCCN Compendium®) Myeloproliferative Neoplasms Version 1.2020. National Comprehensive Cancer Network, 2021. The NCCN Compendium® is a derivative work of the NCCN Guidelines®. NATIONAL COMPREHENSIVE CANCER NETWORK®, NCCN®, and NCCN GUIDELINES® are trademarks owned by the National Comprehensive Cancer Network, Inc. To view the most recent and complete version of the Compendium, go online to NCCN.org. Accessed April 2021.
6. Younossi ZM, Nader FH, Bai C, et al. A phase II dose finding study of darbepoetin alpha and filgrastim for the management of anaemia and neutropenia in chronic hepatitis C treatment. *Journal of Viral Hepatitis* 2008; 15(5):370-8
7. Cervantes F, Alvarez-Laran A, Hernandez-Boluda JC, et al. Darbepoetin-alpha for the anaemia of myelofibrosis with myeloid metaplasia. *British Journal of Haematology*, 134: 184–186. doi:10.1111/j.1365-2141.2006.06142.x

8. Andre JL, Deschenes G, Boudaillies B, et al, "Darbepoetin, Effective Treatment of Anaemia in Paediatric Patients With Chronic Renal Failure," *Pediatr Nephrol*, 2007, 22(5):708-14.
9. Canon JL, Vansteenkiste J, Bodoky G, et al, "Randomized, Double-Blind, Active-Controlled Trial of Every-3-Week Darbepoetin Alfa for the Treatment of Chemotherapy-Induced Anemia," *J Natl Cancer Inst*, 2006, 98(4):273-84.
10. Bristoyiannis G, Germanos N, Grekas D, et al, "Unit Dosing of Darbepoetin Alfa for the Treatment of Anemia in Patients With End-Stage Renal Disease Being Switched From Recombinant Human Erythropoietin: Results of a Phase IIIb, 27-Week, Multicenter, Open-Label Study in Greek Patients," *Curr Ther Res*, 2005, 66(3):195-211.
11. Gabrilove J, Paquette R, Lyons RM, et al. Phase 2, single-arm trial to evaluate the effectiveness of darbepoetin alfa for correcting anaemia in patients with myelodysplastic syndromes. *Br J Haematol*. 2008;142(3):379-393.
12. Park S, Fenaux P, Greenberg P, et al. Efficacy and safety of darbepoetin alpha in patients with myelodysplastic syndromes: a systematic review and meta-analysis. *Br J Haematol* 2016;174(5):730-747. Doi: 10.1111/bjh.14116
13. Park S, Greenberg P, Yucel A, et al. Clinical effectiveness and safety of erythropoietin-stimulating agents for the treatment of low- and intermediate-1-risk myelodysplastic syndrome: a systematic literature review. *Br J Haematol*. 2019;184(2):134-160. doi: 10.1111/bjh.15707
14. Toto RD, Pichette V, Brenner R, et al, "Darbepoetin Alfa Effectively Treats Anemia in Patients With Chronic Kidney Disease With de novo Every-Other-Week Administration," *Am J Nephrol*, 2004, 24(4):453-60.
15. Warady BA, Arar MY, Lerner G, et al, "Darbepoetin Alfa for the Treatment of Anemia in Pediatric Patients With Chronic Kidney Disease," *Pediatr Nephrol*, 2006, 21(8):1144-52.
16. Kidney Disease: Improving Global Outcomes (KDIGO) Anemia Work Group. KDIGO clinical practice guideline for anemia in chronic kidney disease. *Kidney Int Suppl*. 2012;2(suppl):279-335. <https://kdigo.org/guidelines/anemia-in-ckd/>. Published August 2012.
17. Pfeffer MA, Burdmann EA, Chen CY, et al; TREAT Investigators. A trial of darbepoetin alfa in type 2 diabetes and chronic kidney disease. *N Engl J Med*. 2009 Nov 19;361(21):2019-32. doi: 10.1056/NEJMoa0907845.
18. Mikhail A, Brown C, Williams JA, et al. Renal association clinical practice guideline on Anaemia of Chronic Kidney Disease. *BMC Nephrol*. 2017 Nov 30;18(1):345. doi: 10.1186/s12882-017-0688-1.
19. Wisconsin Physicians Service Insurance Corporation. Local Coverage Determination (LCD): Erythropoiesis Stimulating Agents (ESAs) (L34633). Centers for Medicare & Medicaid Services, Inc. Updated on 12/16/2019 with effective dates 02/09/2020. Accessed April 2021.
20. CGS Administrators, Inc. Local Coverage Determination (LCD): Erythropoiesis Stimulating Agents (ESA) (L34356). Centers for Medicare & Medicare Services. Updated on 02/24/2021 with effective dates 03/04/2021. Accessed April 2021.

21. First Coast Service Options, Inc. Local Coverage Determination (LCD): Erythropoiesis Stimulating Agents (L36276). Centers for Medicare & Medicare Services. Updated on 10/25/2019 with effective dates 10/29/2019. Accessed April 2021.
22. National Coverage Determination (NCD) for Erythropoiesis Stimulating Agents (ESAs) in Cancer and Related Neoplastic Conditions (110.21). Centers for Medicare & Medicaid Services, Inc. Updated on 01/14/2021 with effective dates 7/30/2007. Accessed April 2021.
23. Wisconsin Physicians Service Insurance Corporation. Local Coverage Article (LCA): Billing and Coding: Erythropoiesis Stimulating Agents (ESAs) (A56795). Centers for Medicare & Medicaid Services, Inc. Updated on 09/21/2020 with effective dates 10/01/2020. Accessed April 2021.
24. First Coast Service Options, Inc. Local Coverage Article (LCA): Billing and Coding: Erythropoiesis Stimulating Agents (A57628). Centers for Medicare & Medicaid Services. Updated on 09/25/2020 with effective dates 10/01/2020. Accessed April 2021.
25. CGS Administrators, LLC. Local Coverage Article (LCA): Billing and Coding: Erythropoiesis Stimulating Agents (ESA) (A56462). Centers for Medicare & Medicaid Services. Updated on 02/24/2021 with effective dates 03/04/2021. Accessed April 2021.

Appendix 1 – Covered Diagnosis Codes

ICD-10	ICD-10 Description
C93.10	Chronic myelomonocytic leukemia, not having achieved remission
C94.40	Acute panmyelosis with myelofibrosis not having achieved remission
C94.41	Acute panmyelosis with myelofibrosis in remission
C94.42	Acute panmyelosis with myelofibrosis in relapse
C94.6	Myelodysplastic disease, not classified
D46.0	Refractory anemia without ring sideroblasts, so stated
D46.1	Refractory anemia with ring sideroblasts
D46.20	Refractory anemia with excess of blasts, unspecified
D46.21	Refractory anemia with excess of blasts 1
D46.4	Refractory anemia, unspecified
D46.9	Myelodysplastic syndrome, unspecified
D46.A	Refractory cytopenia with multilineage dysplasia
D46.B	Refractory cytopenia with multilineage dysplasia and ring sideroblasts
D46.C	Myelodysplastic syndrome with isolated del(5q) chromosomal abnormality
D46.Z	Other myelodysplastic syndromes
D47.1	Malignant neoplasm of peripheral nerves of upper limb, including shoulder
D47.4	Malignant neoplasm of peripheral nerves of abdomen
D63.0	Anemia in neoplastic disease
D63.1	Anemia in chronic kidney disease
D64.81	Anemia due to antineoplastic chemotherapy
D64.9	Anemia unspecified
D75.81	Secondary polycythemia

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I12.9	Hypertensive chronic kidney disease with stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease
I13.0	Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease
I13.10	Hypertensive heart and chronic kidney disease without heart failure, with stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease
N18.30	Chronic kidney disease, stage 3 (moderate), unspecified
N18.31	Chronic kidney disease, stage 3a
N18.32	Chronic kidney disease, stage 3b
N18.4	Chronic kidney disease, stage 4 (severe)
N18.9	Chronic kidney disease, unspecified
Z51.11	Encounter for antineoplastic chemotherapy
Z51.89	Encounter for other specified aftercare

Dual coding requirements:

- Anemia due to CKD (not on dialysis): must bill D63.1 AND N18.31, N18.32, or N18.4

Appendix 2 – Centers for Medicare and Medicaid Services (CMS)

Medicare coverage for outpatient (Part B) drugs is outlined in the Medicare Benefit Policy Manual (Pub. 100-2), Chapter 15, §50 Drugs and Biologicals. In addition, National Coverage Determination (NCD), Local Coverage Articles (LCAs), and Local Coverage Determinations (LCDs) may exist and compliance with these policies is required where applicable. They can be found at: <http://www.cms.gov/medicare-coverage-database/search/advanced-search.aspx>. Additional indications may be covered at the discretion of the health plan.

Medicare Part B Covered Diagnosis Codes (applicable to existing NCD/LCA/LCD):

Jurisdiction(s): ALL	NCD/LCD Document (s): 110.21
https://www.cms.gov/medicare-coverage-database/search/document-id-search-results.aspx?DocID=110.21&bc=gAAAAAAAAAAAAAAAA%3d%3d&	

Jurisdiction(s): 5, 8	NCD/LCD Document (s): L34633
https://www.cms.gov/medicare-coverage-database/search/lcd-date-search.aspx?DocID=L34633&bc=gAAAAAAAAAAAAAAAA==	

Jurisdiction(s): 15	NCD/LCD Document (s): L34356
https://www.cms.gov/medicare-coverage-database/search/lcd-date-search.aspx?DocID=L34356&bc=gAAAAAAAAAAAAAAAA==	

Jurisdiction(s): N	NCD/LCD Document (s): L36276
https://www.cms.gov/medicare-coverage-database/search/lcd-date-search.aspx?DocID=L36276&bc=gAAAAAAAAAAAAAAAA==	

Jurisdiction(s): 5, 8	NCD/LCD Document (s): A56795
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<https://www.cms.gov/medicare-coverage-database/search/article-date-search.aspx?DocID=A56795&bc=gAAAAAAAAAAAA>

Jurisdiction(s): N **NCD/LCD Document (s):** A57628

<https://www.cms.gov/medicare-coverage-database/search/article-date-search.aspx?DocID=A57628&bc=gAAAAAAAAAAAA>

Jurisdiction(s): 15 **NCD/LCD Document (s):** A56462

<https://www.cms.gov/medicare-coverage-database/search/article-date-search.aspx?DocID=A56462&bc=gAAAAAAAAAAAA>

Medicare Part B Administrative Contractor (MAC) Jurisdictions

Jurisdiction	Applicable State/US Territory	Contractor
E (1)	CA, HI, NV, AS, GU, CNMI	Noridian Healthcare Solutions, LLC
F (2 & 3)	AK, WA, OR, ID, ND, SD, MT, WY, UT, AZ	Noridian Healthcare Solutions, LLC
5	KS, NE, IA, MO	Wisconsin Physicians Service Insurance Corp
6	MN, WI, IL	National Government Services, Inc. (NGS)
H (4 & 7)	LA, AR, MS, TX, OK, CO, NM	Novitas Solutions, Inc.
8	MI, IN	Wisconsin Physicians Service Insurance Corp
N (9)	FL, PR, VI	First Coast Service Options, Inc.
J (10)	TN, GA, AL	Palmetto GBA, LLC
M (11)	NC, SC, WV, VA (excluding below)	Palmetto GBA, LLC
L (12)	DE, MD, PA, NJ, DC (includes Arlington & Fairfax counties and the city of Alexandria in VA)	Novitas Solutions, Inc.
K (13 & 14)	NY, CT, MA, RI, VT, ME, NH	National Government Services, Inc. (NGS)
15	KY, OH	CGS Administrators, LLC