Use of ESAs and Other Agents to Treat Anemia in CKD

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Anaemia of CKD

Guideline 1 - Erythropoiesis Stimulating Agents

- We recommend that treatment with ESAs should be offered to patients with anemia of CKD who are likely to benefit in terms of ***quality of life*** and ***physical function*** and to avoid transfusion in patients considered suitable for Tx .
- ESA therapy should not be initiated in the presence of **absolute iron deficiency** without also managing the iron deficiency .
- We recommend using ESA therapy with great caution, if at all, in CKD patients with **active malignancy—in particular when cure is the anticipated outcome** (1B), **a history of stroke** (1B), or **a history of malignancy** (2C).
- For adult CKD-ND patients with **Hb>= 10.0 g/dl**, we suggest that ESA therapy **not be initiated** .
- For adult CKD-ND patients with **Hb < 10.0 g/dl** , we suggest that the decision whether to initiate ESA therapy be individualized based on the rate of fall of Hb concentration, prior response to iron therapy, the risk of needing a transfusion, the risks related to ESA therapy and the presence of symptoms attributable to anemia .
- Individualization of therapy is reasonable as some patients may have improvements in **quality of life** at higher Hb concentration and ESA therapy may be started above **10.0 g/dl .**

- For adult CKD-5D patients, we suggest starting ESA therapy when the Hb **9.0-10.0 g/dl**.
- In general, we suggest that ESAs **not be used** to maintain Hb **>11.5 g/dl** in adult patients with CKD.

Guideline 2 : Choice of ESA

- We recommend that the decision on the choice of ESA is **based on local availability of ESAs.**

Guideline 3 : Target Hb

- We recommend that patients with CKD on ESA therapy should achieve Hb **10-12 g/dl.**

Guideline 4 : Initial ESA dose

- We recommend that the initial ESA dose should be determined by the patient's Hb level, the target Hb level, the observed rate of increase in Hb level and clinical circumstances. (1B)

Guideline 5 : Route of administration

- Subcutaneous (SC) route is the access of choice in non-HD patients, while convenience may favour intravenous (IV) administration in HD patients. (2B)

Guideline 6 : Frequency of administration

- Less frequent administration using long acting ESAs may be the treatment of choice in non–HD patients. (2B)

Guideline 7 : ESA dose adjustments

- We recommend that adjustments to ESA doses should be considered when Hb is **<10.5 or >11.5 g /dL** in order to balance the benefit and safety to patients given the current evidence base. These thresholds for intervention should achieve a population distribution centred on a mean of 11g/dl with a range of 10-12. (1B)
- We suggest that ESA doses should ideally be **decreased rather than withheld** when a downward adjustment of Hb level is needed. (2B)
- We recommend that ESA administration in ESA-dependent patients should continue **during acute illness, surgical procedures or any other cause of hospitalisation.** (1B)

Guideline 8 : Nutritional supplements

- Supplements of **vitamin C, folic acid or carnitine** should not be prescribed as adjuvants specifically for the treatment of anaemia of CKD .
- In people with anaemia of CKD, **androgens** should not be used to treat the anaemia .
- In people with anaemia of CKD, clinically relevant **hyperparathyroidism** should be treated to improve the management of the anaemia .

Guideline 9 : Monitoring of Hb during ESA therapy :

- During the initiation phase of ESA therapy, measure Hb concentration **at least monthly .**
- For CKD-ND patients, during the maintenance phase of ESA therapy measure Hb concentration **at least every 3 months**
- For CKD-5D patients, during the maintenance phase of ESA therapy measure Hb concentration **at least monthly**

Guideline 10 : Hypertension during ESA therapy

- We recommend that blood pressure should be monitored in all patients receiving ESAs and, if present, hypertension be treated by **volume removal and/or hypotensive drugs**. (1A)


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