LEBANESE GUIDELINES FOR ERYTHROPOIESIS-STIMULATING AGENTS (ESAs) APPROVAL IN NON-DIALYSIS CHRONIC KIDNEY DISEASE (ND-CKD) PATIENTS AT THE MOPH

(Based on KDOQI 2006, KDIGO 2012 and a Lebanese national survey of 238 patients in 2017)

1-ESA initiation

-Address iron deficiency before ESA therapy initiation (iron deficiency defined as ferritin<100 ng/ml and/or transferrin saturation (TSAT)<20%).

-ESA requisition forms that lack ferritin and TSAT values will be returned.

-If Hb ≥ 10 g/dl, ESA will be approved only if patient symptomatic with a ferritin >100 ng/ml and TSAT >20%, otherwise rejected.

-If Hb 9-10 g/dl, ESA will be approved if ferritin>100 ng/ml and TSAT >20%, otherwise rejected.

-If Hb<9 g/dl and ferritin<100 ng/ml and/or TSAT<20%, ESA will be approved for one month and renewed only if ferritin>100 ng/ml and TSAT>20%.

-If Hb< 9g/dl and ferritin>100 ng/ml and TSAT>20%, ESA will be approved.

2-ESA maintenance

-Monitor ferritin and TSAT every 6 months to detect iron deficiency.

-ESA will be approved at 50% of the prior dosage if Hb 11.5-12 g/dl and ferritin>100 ng/ml and TSAT>20% (with the condition that the patient is informed of and accepts the risks of maintaining his Hb level >11.5g/dl). Otherwise withhold ESA.

-If Hb 9-11.5 g/dl, ESA will be approved at the same dose if ferritin >100 ng/ml and TSAT>20%, otherwise rejected.

-If Hb<9 g/dl and ferritin<100 ng/ml and/or TSAT<20%, ESA will be approved for one month and renewed only if ferritin>100 ng/ml and TSAT >20%.

-If Hb< 9g/dl and ferritin>100 ng/ml and TSAT>20%, ESA will be approved.

3-Iron deficiency treatment (if ferritin <100 ng/ml and TSAT<20%)

Initiate treatment with oral iron. If patient remains iron deficient after 3 months, give a trial of intravenous iron.

4-ESA dosing

-For initiation, EPO 20-50 UI/Kg once, twice or three times per week and Darbepoietin 0.75 µg/Kg every week or two weeks or once in a month.

-For maintenance, same dose if Hb 10-11.4 g/dl, a reduction of 50% of the dose if Hb 11.5-12 g/dl and withholding treatment for one month if Hb>12 g/dl.

5-ESA administration

ESA is administered subcutaneously for ND-CKD patients.

6-Type of ESA

It depends on the availability at the MOPH.

7-ESA pediatric use

In pediatric patients, ESA will be approved if ferritin is >100 ng/ml and TSAT>20% for initiation and maintenance, based on the clinical judgement of the treating physician and not on the Hb level.

Iron deficiency in children should be addressed with oral iron.

8-Referring physician

All prescriptions of ESA for CKD patients should be signed by a nephrologist.

9- Duration of approval

ESA will be approved for 3 months in CKD stage 5 (eGFR<15 ml/min) and for 6 months in CKD stages 3 and 4 (eGFR 15-59 ml/min).

ESA will not be approved in CKD stages 1 and 2 (eGFR≥60 ml/min).