EFFECTS OF REIMBURSEMENT CHANGES ON USE OF ERYTHROPOIESIS-STIMULATING AGENTS IN DIALYSIS PATIENTS

ATC code: B03

CP-179

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Cannes 2017

BACKGROUND

- ✓ In France, a certain number of hospital drugs are listed at the national level to be charged to health insurance, in addition to hospital stay fees based on diagnosis related group (DRG) tariffs.
- ✓ This list, called “liste en sus”, is regularly updated with new entries as innovative and expensive drugs reach the market.
- ✓ When they begin to be used more widely and/or their cost decreases, drugs should be removed from this list and put back into the DRG system.

⇨ **Erythropoiesis-stimulating agents (ESA) were removed from the “liste en sus” in March 2014**

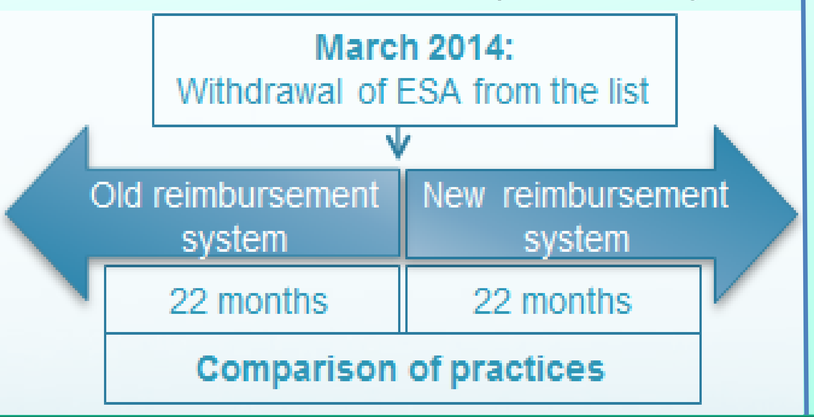
OBJECTIVE

⇨ **To evaluate the impact of change in reimbursement system on the use of ESA, for the treatment of anemia in patients with chronic kidney disease (CKD) on dialysis.**

METHODS

Figure 1 - Design

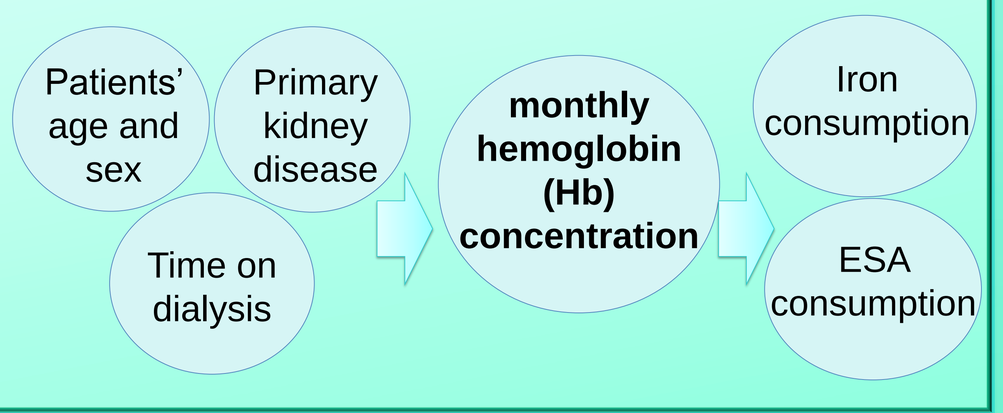
✓ Retrospective study



Inclusion criteria

✓All adult patients with CKD on dialysis and receiving ESA treatment during one of the two periods.

Variables

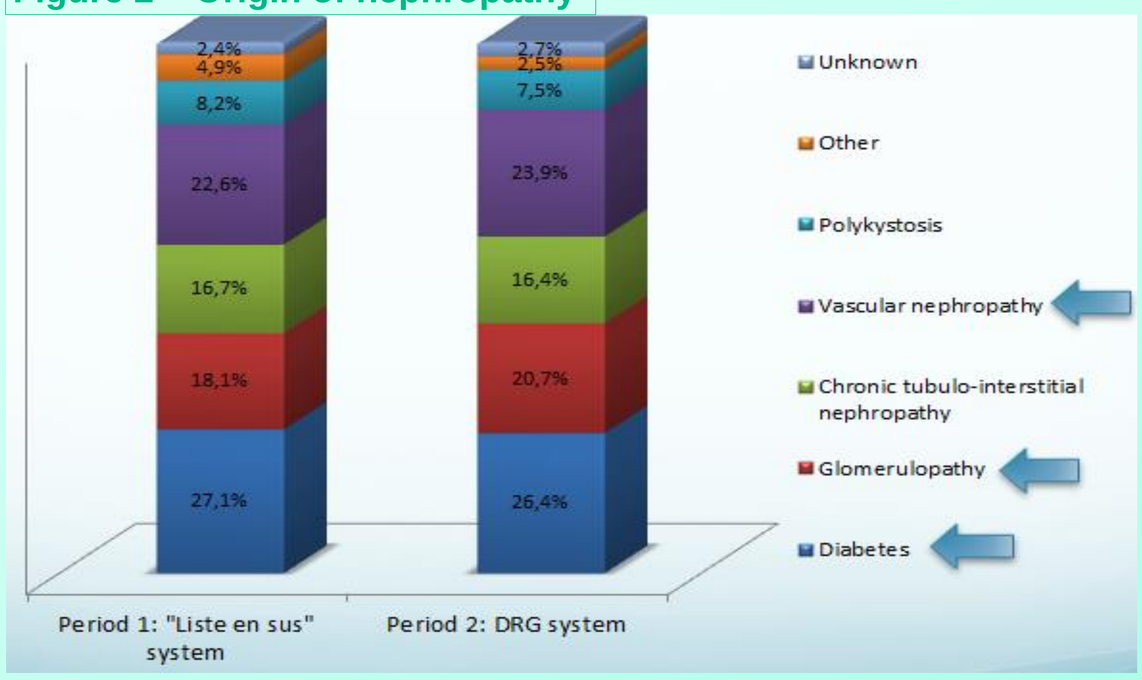


RESULTS & DISCUSSION

Table 1 – Patients’ characteristics

Patients' characteristics	Period 1: "Liste en sus" system (01/05/2012 - 29/02/2014) N=569	Period 2: DRG system (01/03/2014 - 31/12/2015) N=585
Median age [range]	67 [19-97]	67 [20-91]
Sex-ratio	1,45	1,45
Median time on dialysis	3,4	2,7

Figure 2 – Origin of nephropathy



✓The characteristics of the patients are similar between the two periods.

Table 2 – Hemoglobin levels

Variables	Period 1: "Liste en sus" system (01/05/2012 - 29/02/2014)	Period 2: DRG system (01/03/2014 - 31/12/2015)
Mensual mean Hb	110,5 g/l	108,8 g/l
Median rate of Hb > 120 g/l	24,8 %	19,2 %
Median rate of Hb < 100 g/l	21,5 %	23,5 %
Mensual mean of iron consumption (u)	418	490
Total consumption of ESA (number of dispensation)	8928	9022

- ✓A **significant decrease** of the mean Hb level ($p<0.05$) was observed between the “Liste en sus” period and the “DRG” period;
- ✓The Hb target seems to be lower in the second period;
- ✓Patients seem to be over-treated in the period 1 compared to under-treated in the period 2;
- ✓The average consumption of iron **increased significantly** during the second period;
- ✓The total consumption of ESA **stayed** proportional to the number of patients.

CONCLUSIONS

This study shows a lower hemoglobin rate target (which can also be related to the evolution of recommendations) and an increase in iron use, but no decrease in the ESA consumption. It seems that the reimbursement change had little impact on the use of ESA for treatment of anemia in patients on dialysis.

⇨ **Further criteria, like the Charlson comorbidity index, erythropoietin resistance index, number of transfusions, should be evaluated to explain these results and confirm the clinical relevance of the effects observed.**