NOT ALL DIALYZERS ARE CREATED EQUAL.

Learn how the REVACLEAR Dialyzer, when compared to Optiflux Dialyzer, may potentially save an estimated $660 per patient annually, through reduced erythropoiesis-stimulating agent (ESA) utilization.

Baxter

REVACLEAR DIALYZER AND ESA USE

In a large-scale retrospective, observational study (N~37,500), REVACLEAR Dialyzer was associated with up to 600 fewer units of ESA, with a median of 275 fewer units used per hemodialysis (HD) session compared with control dialyzers ($p<0.05$).[1]

Estimated savings of

$4.39

for each HD session by reducing per-session ESA dose by 275 units[1,2]

Estimated annual ESA savings of

$660

for one patient receiving 3 dialysis sessions per week*[1,2]

*This is a conservative average calculated over 12 months.

Comparative effectiveness of dialyzers: a longitudinal, propensity score-matched study of incident hemodialysis patients

The results on ESA use are from a comparative-effectiveness study commissioned by Baxter International with DaVita Clinical Research.[1]

- A retrospective study analyzed the 12-month records of 37,500 adult propensity-matched patients.[1]
- Study organizers evaluated the comparative effectiveness of commonly used dialyzers on measures of dialysis treatment, anemia management, inflammation, and dialyzer clotting.[1]
- Treatment with the REVACLEAR Dialyzer was compared with a control group of Optiflux 160 and Optiflux 180 high-flux dialyers.[1]

Estimated cost savings with reduced ESA use

Differences in ESA utilization may be economically significant to dialysis providers at the population level.[1] Under current reimbursement, injectable medications are covered by Medicare bundled payments for dialysis and the vast majority of end-stage renal disease (ESRD) patients receiving dialysis are Medicare beneficiaries.[1]

Estimated savings are based on the 2016 average wholesale cost of EPOGEN (Epoetin alfa) of $31.92 per 2000 IU.[2]

COMPARATIVE EFFECTIVENESS OF DIALYZERS

A longitudinal, propensity score-matched study of incident hemodialysis patients[1]
Sibbel S, Hunt A, Laplante S, Beck W, Gellens M, Brunelli SM.
ASAIO journal. Jul 20 2016.

Objective

To evaluate comparative effectiveness of commonly used dialyzers on measures of dialysis treatment, anemia management, inflammation, and dialyzer clotting.

Patient population

The population included 37,500 U.S. adult HD patients who began in-center HD with a study dialyzer at least 3 times per week during the study period of January 2009 to December 2013.

Study arms included patients receiving dialysis with one of three dialyzers: the POLYFLUX and REVACLEAR (PAS-PVP) Dialyzer, Optiflux F160NR (PS-160) dialyzer, or the Optiflux F180NR (PS-180) dialyzer. Patients were excluded if they were younger than 18 years, Veterans Administration beneficiaries, or were on a dialysis modality other than in-center HD.

37,500
U.S. adult hemodialysis patients

12 months
follow-up between January 2009–December 2013

3X per week
in-center HD with a study dialyzer

Methodology

The study was a propensity-matched retrospective, observational analysis of preexisting, de-identified data from DaVita Clinical Research. Eligible patients were propensity-score matched 1:1 on a range of baseline characteristics, including age, gender, race, body weight, dialysis access type, and comorbidities such as diabetes, congestive heart failure, and coronary artery disease, among others.

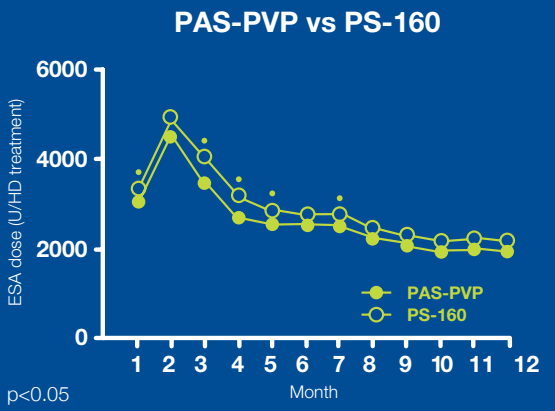
Results

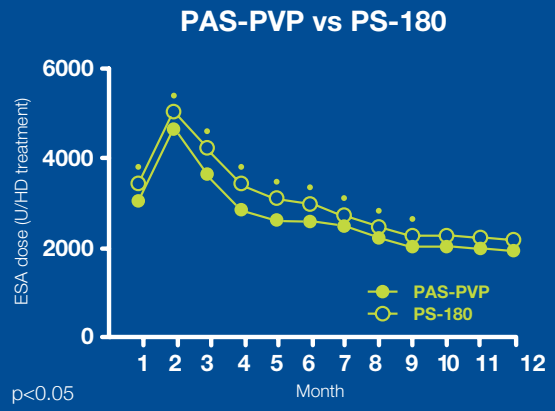
Dialyzer groups in the primary and secondary comparisons were well matched across all variables considered.

- No clinically meaningful differences in dialysis adequacy were observed between dialyzer groups.
- Most outcomes relative to inflammation and clotting parameters were comparable between groups.
- Statistically significant differences were observed in ESA and IV iron utilization over the first year of dialysis in select months. See accompanying chart to the right.
- Differences in IV iron utilization were small and not considered to be clinically significant.
- Hemoglobin concentrations were equivalent over the first year of dialysis.

Discussion

Treatment with PAS-PVP versus PS membrane dialyzers was associated with lower ESA utilizations and modestly lower IV iron doses at equivalent hemoglobin concentrations over the first year of dialysis. The mechanism leading to differing ESA requirements between dialyzers could not be definitively determined in a retrospective study.





Primary comparison

ESA use was significantly lower for PAS-PVP patients in months 1–5 and month 7 and numerically lower in all other months, compared with treatment outcomes for the larger surface area PS-160 dialyzer. The magnitude of the difference ranged from 75 to 589 U/HD per treatment month throughout the follow-up period.

Secondary comparison

ESA utilization was lower among PAS-PVP users in all months, with differences achieving statistical significance in months 1–9, compared with the larger surface area PS-180 dialyzer. The difference in ESA utilization ranged from 239-591 U/HD per treatment in months 1–9. Per-session ESA doses were greater in the secondary comparison than in the primary comparison; however, the difference is consistent with larger patients requiring higher ESA doses to achieve equivalent hemoglobin concentrations.

For more information visit www.esrddialysis.com, or contact your Baxter Sales Representative

References

1. Sibbel S, Hunt A, Laplante S, Beck W, Gellens M, Brunelli SM. Comparative effectiveness of dialyzers: a longitudinal, propensity score-matched study of incident hemodialysis patients. ASAIO journal. Jul 20 2016.
2. EPOGEN (Epoetin alfa) RED BOOK Online Product Details. Micromedex Solutions. 2016.

S. Sibbel, A. Hunt, and S. Brunelli are employees of DaVita Clinical Research. S. Laplante, W. Beck, and M. Gellens are employees of Baxter Healthcare Corporation. S. Brunelli's spouse is employed by AstraZeneca.

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Rx Only. For the safe and proper use of the devices mentioned herein, please refer to the Instructions for Use.

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