been conducted. 12 treatments were performed. Machine's usability and accuracy has been evaluated by the staff through scores table. The measurement of fluid balance accuracy was even performed.

Results: Based on score given by the staff (engineers, nurses and physicians), the machine hardware results compact and well organized, with 3 well separated compartments (dialysate/replacement, blood and effluent) that facilitate the preparation phase. Auto-priming function allows short priming time. The interface is user friendly in all the modalities (SCUF, CVVH, CVVHD, CVVHDF, TPE both for adults and pediatrics). The measured fluid balance error was always lower than 0.3%. On the contrary CVVHDF pre-infusion and pre+post infusion are not performable. For pediatric treatment the continuity of the flow of blood pump need to be maintained and improved.

Conclusions: Kibou is a promising CRRT machine that can perform multiple continuous therapies with just one platform. In particular, we evaluated a highly accurate gravimetric fluid balance control system and a user friendly interface. Kibou is one of the first machines of the new frontier of CRRT devices: the fourth generation of CRRT machines.

PUB313

The Effect of MySleeve on Fluid Restriction Adherence in Hemodialysis Patients

Idowu B.I Ayoola,[1] Marijke J.E. Dekker,[2] Marc Schonck,[2] Jeroen Kooman,[3] Erik Korsten,[1,2] Wei Chen,[1] Constantijn Konings,[2] Loe M. Feijs.[1] *[1]Industrial Design, Technology Univ Eindhoven, Eindhoven, Netherlands; [2]Medicine, Div of Nephrology, Catharina Hospital Eindhoven, Eindhoven, Netherlands; [3]Medicine, Div of Nephrology, Maastricht Univ Medical Center, Maastricht, Netherlands.*

Background: In hemodialysis patients, non-adherence to fluid restriction is associated with high interdialytic weight gain (IDWG) and adverse outcomes. Monitoring drinking behaviour and direct feedback to the patient can lead to better adherence. We developed the MySleeve, a device that can be wrapped around a drinking glass to monitor fluid intake throughout the day. The MySleeve will also provide a subtle vibration on the glass when the amount drunk exceeds target. The information about drinking behaviour can be found in the accompanying application on a mobile phone. In this study, we investigate the effect of direct feedback and information to the patient on fluid restriction adherence, measured by the IDWG.

Methods: We will include 40 prevalent, anuric hemodialysis patients from the Catharina Hospital Eindhoven, The Netherlands in a randomised controlled trail. Patients in the intervention group are provided a MySleeve device, a mobile phone and an activity tracker. BCM measurements are performed weekly and IDWG will be calculated before every dialysis session. The patients in the control group will continue with regular hemodialysis.

Results: We expect that by providing patients insight in fluid intake, there will be an increase in fluid restriction adherence and an increase in activity levels and better quality of sleep. Due to less IDWG, patients will experience less discomfort of fluid overload.

Conclusions: Introducing a MySleeve device to provide direct insight into drinking behavior will help the patients to adhere to their fluid restriction, leading to less IDWG and better quality of life measured by daily activity and better sleep.

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PUB314

A Time and Motion Study of Erythropoiesis Stimulating Agent Administration in United States Dialysis Centers

Mark Stephens,[1] Larry C. Emerson,[2] Leslie A. Spry,[2] John P. Caloyeras,[3] Ernest R. Anderson,[4] John Reitan,[4] Akhtar Ashfaq.[3] *[1]Prima Health Analytics; [2]Dialysis Center of Lincoln; [3]Amgen, Inc.; [4]RJM Group.*

Background: Previous research suggests that ESA administration in dialysis is a time-consuming task and switching to less frequently dosed ESAs may offer opportunities for more efficient and effective patient care. This study estimated the time required for activities involved in the ESA process at US dialysis centers using epoetin alfa (EPO) or darbepoetin alfa (DPO), and examined potential time savings of switching from EPO to DPO.

Methods: Time and motion study conducted from 10/2014 to 1/2015 to assess activities involved and staff time required to prepare, administer and document ESA doses. A sample of 11 dialysis centers using either 3 times-per-week (TIW) EPO or once-weekly (QW) DPO were selected in pairs (one EPO, one DPO), where possible, from the same organization or nephrology practice to help control for anemia management protocols and staffing patterns. ESA-related tasks were timed by trained nurse observers. Time savings expected from switching from TIW EPO to QW DPO were estimated. Staff were interviewed about alternate patient-focused activities that could be accomplished if time were saved in the ESA process.

Results: 200 administrations were observed (81 DPO, 119 EPO). A mean of 2.3 (95% CI: 2.1-2.5) minutes per dose were required for ESA-related activities. RNs performed 95% of tasks; LPNs 5%. ESA process time did not vary significantly between EPO and DPO (>p=0.83). Staff time savings would accrue due to fewer ESA administrations using QW DPO: 10-20 minutes per nurse/day. For an average facility, the total monthly nurse time that could be re-purposed was 24 hours. Patient education, fulfillment of care plans and more frequent review of labs were identified as opportunities for improved care processes that could be implemented after conversion.

Conclusions: Switching from TIW EPO to QW DPO for anemia management in dialysis patients can result in time savings and opportunities to redirect nurse time towards activities aimed at improving patient care while still offering the ability to respond to changing clinical circumstances to effectively manage anemia.

Funding: Pharmaceutical Company Support - Amgen, Inc.

PUB315

Observational Study on the Use of Darbepoetin Alfa in Hemodialysis Patients in Central Eastern Europe – ANREG Final Analysis

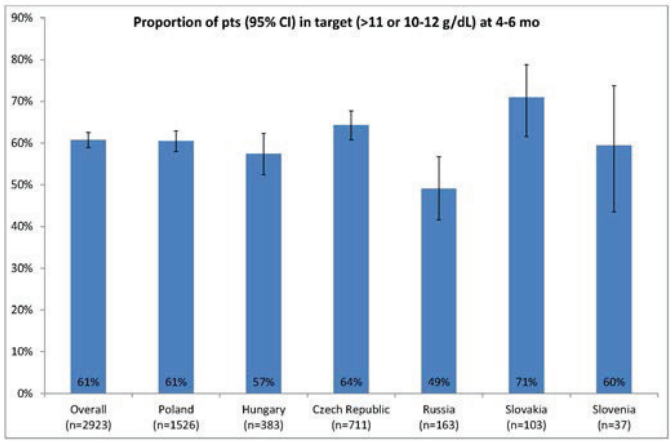
Tomasz Jerzy Irzyniec,[1] Alena Parikova,[2] Alexander Selyutin,[3] Botond Csiky,[4] Jaroslav Rosenberger,[5] Igor Rus,[6] Kinga Jedynasty.[7] *[1]Dept of Nephrology/ENDO, MSW Hospital, Katowice, Poland; [2]Dept of Nephrology, Inst for Clinical and Experimental Medicine, Prague, Czech Republic; [3]B. Braun Atvium, Orenburg, Russian Federation; [4]FMC Dialysis Center, Pécs, Hungary; [5]Nephrology and Dialysis Center Fresenius, Kosice, Slovakia (Slovak Republic); [6]Dept of Hemodialysis/ Nephrology, General Hospital Jesenice, Jesenice, Slovenia; [7]CEE Headoffice, Amgen GmbH, Vienna, Austria.*

Background: This study observed anemia treatment patterns in HD patients (pts) treated with darbepoetin alfa (DA) in clinical practice in CEE.

Methods: Multicenter observational study in HD pts treated with DA. From 2007 to 2014, 14 cohorts were observed for 6 months (mo) each. Primary outcome: % pts maintaining an average Hb at >11 (cohorts 1/2 enrolled prior to label change in 02/2008) or 10-12 g/dL (cohorts 3-12) during mo 4-6. Secondary: conversion versus *de novo* pts, Hb trends, ESA and iron use, adverse drug reactions (ADR).

Results: Of 2923 enrolled pts (n=1101 *de novo*; n=1822 converted from other ESAs), 2647 (91%) completed 6 mo of DA, 276 (9%) discontinued (155 [5%] due to death). At baseline (BL) 83% received iron.

	all	*de novo*	conversion
Median Hb at BL, g/dL	10.2	9.5	10.5
Median Hb at 6 mo, g/dL	11.2	11.3	11.2
% with Hb >11 or 1012 g/dL at 4-6 mo	61	61	61
% with Hb 11-12 g/dL at 4-6 mo	36	36	36



The median DA dose was 10.6 mcg/wk at mo 1 and mo 6. Approx 75% received DA i.v. and once weekly (84% at mo 1, 75% at mo 6). 12 ADR were reported (8 serious, 3 fatal: intracranial hemorrhage; myocardial infarction, death).

Conclusions: Hb increased substantially in *de novo* and conversion pts after DA initiation; >60% reached target by mo 4-6 with some variation between countries.

Funding: Pharmaceutical Company Support - Amgen

PUB316

Dysutilization of Iron for Erythropoiesis Is a Significant Predictor for Adverse Events and Survival in Maintenance Hemodialysis Patients

Takahiro Kuragano, Takeshi Nakanishi. *Dept of Internal Medicine Div of Kidney and Dialysis, Hyogo College of Medicine, Nisinomiya, Hyogo, Japan.*

Background: Patient with high serum ferritin and low transferrin saturation (TSAT) levels could be considered as dysutilization of iron for erythropoiesis. Long-term safety iron administration to these patients has not been well studied.

Methods: Study design was the observational multicenter study for period of 3 years. In 805 patients with maintenance hemodialysis (MHD), we evaluated Hb, ferritin, TSAT levels in every 3 months, and high sensitive C reactive protein (hsCRP) and b2microglbulin (MG) levels every 6 months. We defined dysutilization of iron for erythropoiesis as the patients with lower TSAT (<20%) and higher ferritin (³100 ng/mL) levels. The association between dysutilization of iron for erythropoiesis and adverse event was investigated with the time dependent cox hazard model.

Results: Compared with low TSAT (≤ 20%) level, patient with normal TSAT (20-30%) was significantly lower risk for cerebrovascular and cardiovascular disease (CCVD) (HR:0.25, P=0.04), and patients with higher TSAT (³30%) were significantly lower risk for death (HR:0.12, P=0.01). In multivariate logistic regression analysis, male, younger patients, without diabetes, low hsCRP, and low b2MG were selected as significant predictors of high TSAT, but iron administration or ferritin were not. Compared with low ferritin (<100 ng/mL) and high TSAT (³20%), patients with high ferritin (³100ng/mL) and low TSAT (<20%)