

Baxter

HEMOCONTROL

Modality

WITH THE **HEMOCONTROL**
MODALITY, YOU CAN START
TO DECREASE THIS NUMBER

31%

OF IN-CENTRE HD PATIENTS
EXPERIENCE INTRADIALYTIC
HYPOTENSION (IDH)¹

See how **HemoControl** treatment
can help patients like Mary



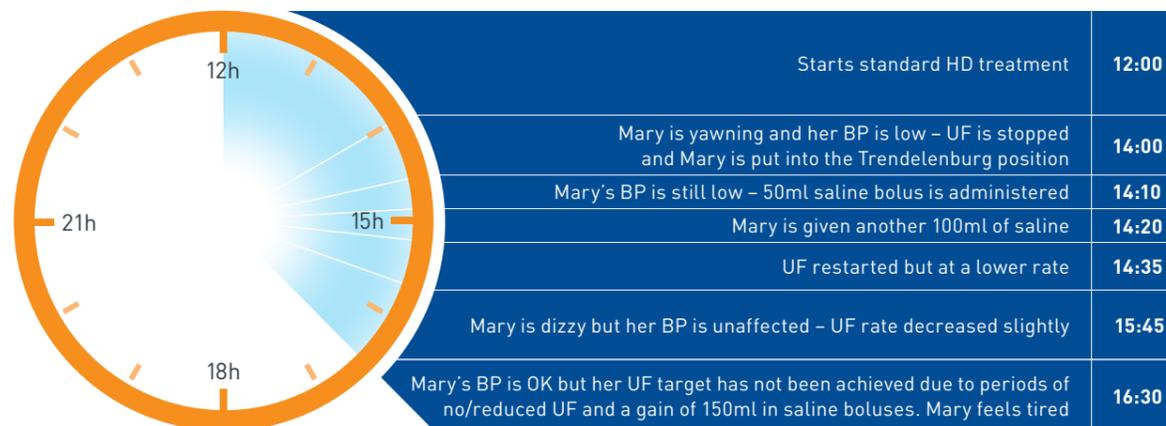
MARY SUFFERS FROM FREQUENT IDH EPISODES AND HAS CHRONIC FLUID OVERLOAD COMPLICATIONS*

- 71 years old with chronic kidney disease from diabetic nephropathy
- Receiving in-centre HD treatment for 2 years
- Developed progressive problems with fluid overload and has needed inpatient assessment and care twice in the last 6 months
- Suffers frequent fluid overload with peripheral oedema, raised jugular venous pressure and occasional breathlessness
- Frequently attends for in-centre HD sessions 3-4kg above her prescribed post-dialysis weight
- Prone to IDH episodes and often leaves in-centre HD above her target post-dialysis weight and still fluid-overloaded



IDH is a common problem for patients like Mary, occurring in 31% of patients during in-centre HD sessions.[†]

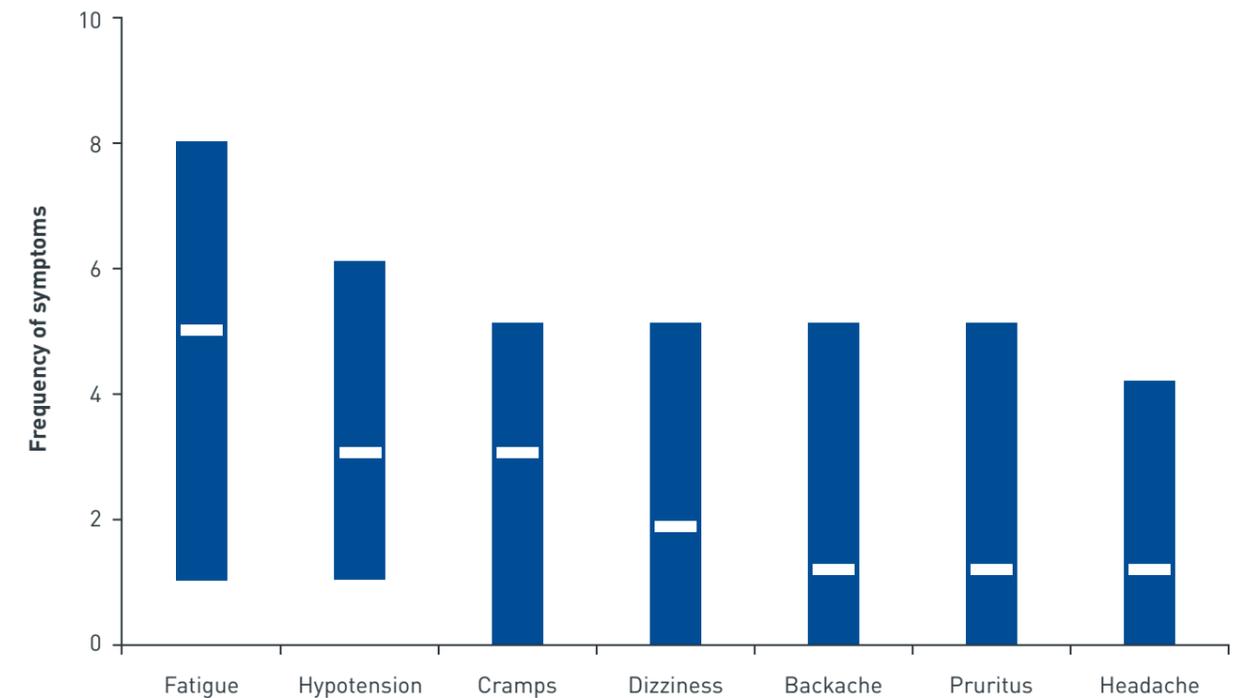
MARY'S TYPICAL SESSION WITH STANDARD IN-CENTRE HD



* Based on a typical patient with IDH – names have been changed to retain anonymity.
 † Based on 39,497 HD patients during a 90-day exposure assessment period.

UP TO 76.4% OF HD PATIENTS REPORT SYMPTOMS OF IDH²

SYMPTOMS FREQUENTLY REPORTED BY HD PATIENTS^{2*}



Adapted from Caplin, 2011²

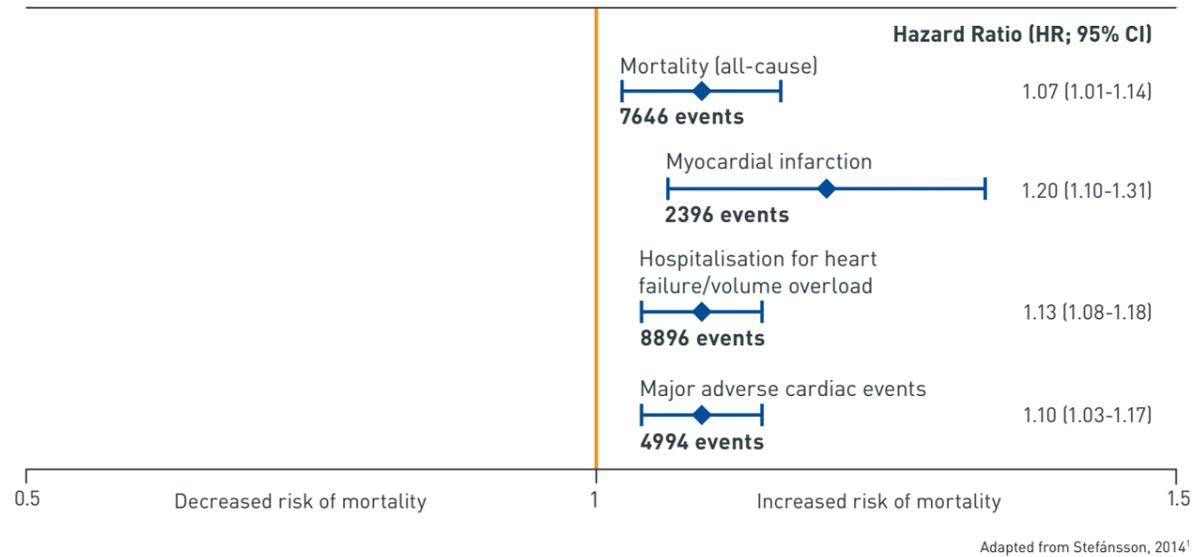
- Hypotension is the second most common patient-reported symptom during HD²
- Correcting fluid overload may lead to frequent IDH episodes and development of IDH symptoms such as cramps and fatigue²

IDH IS A COMMON PROBLEM²

* Study based on patient questionnaires of 550 HD outpatients. The frequency of symptoms was analysed using a visual analogue scale (Score 10 = symptom present during each HD session and Score 0 = symptom always absent). Values expressed as medians (white bar) and 25-75% confidence limits (blue box)².

IDH IS ASSOCIATED WITH INCREASED CARDIOVASCULAR (CV) MORTALITY AND MORBIDITY¹

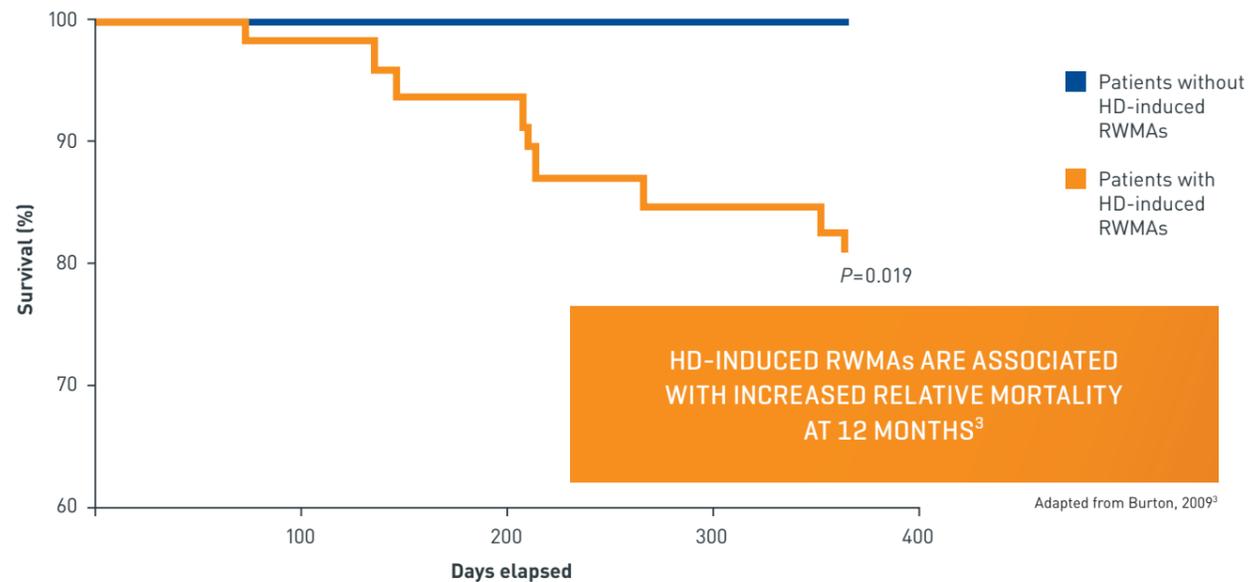
IDH, CV OUTCOMES AND DEATH¹



HD-INDUCED MYOCARDIAL STUNNING IS A RISK FACTOR FOR CV EVENTS AND DEATH³

Myocardial stunning with regional wall motion abnormalities (RWMA) is common in HD sessions and associated with higher UF rates, which are also key risk factors for other CV events and death.³

PATIENT SURVIVAL AND RWMAs^{3*}

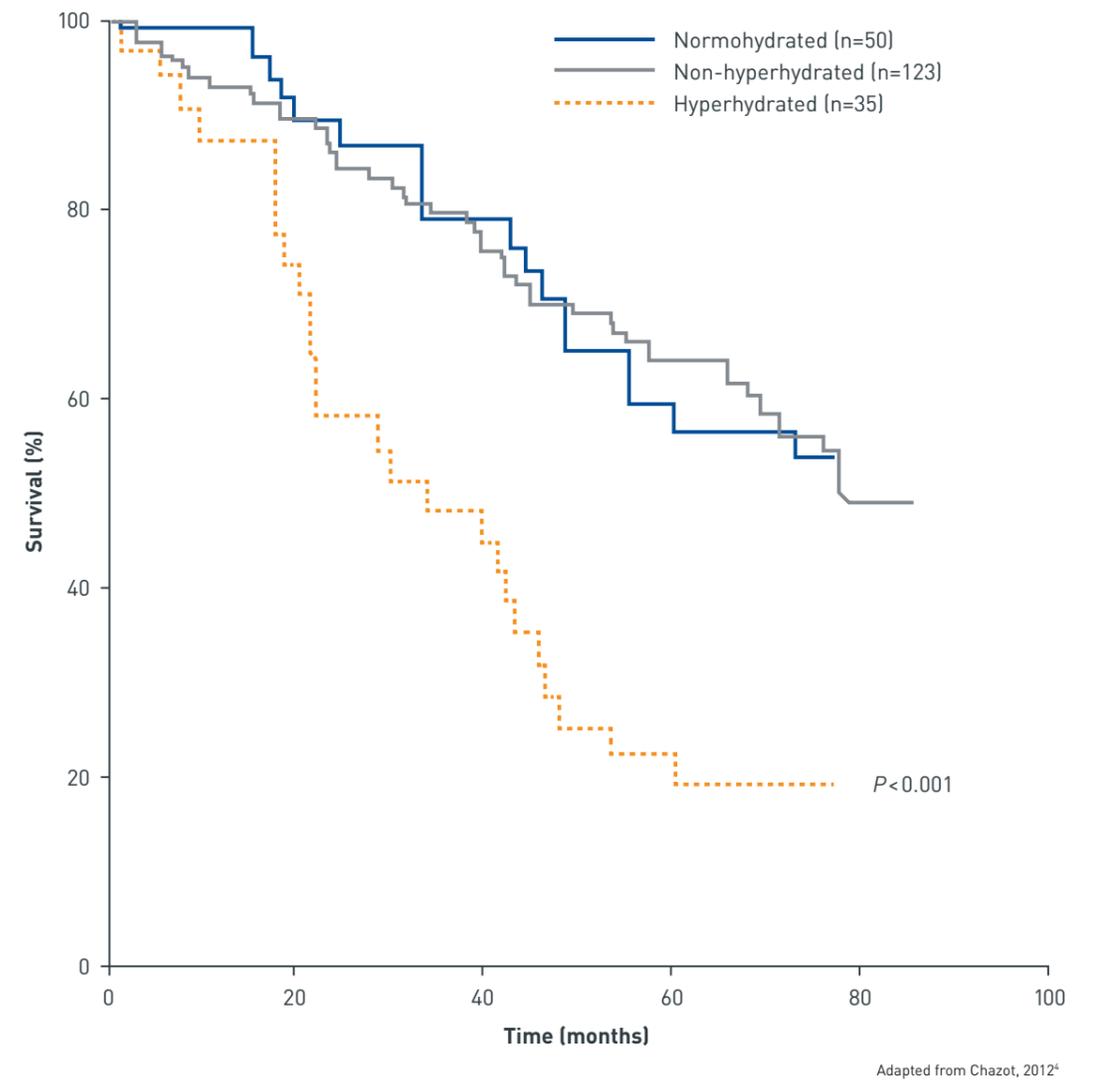


* For this 12-month observational cohort study, 70 standard HD patients were recruited.

FLUID OVERLOAD IS ASSOCIATED WITH INCREASED ALL-CAUSE MORTALITY^{4,5}

28.3% of patients have been reported to have severe pre-dialysis fluid overload⁵

HYDRATION STATUS AND PATIENT SURVIVAL^{4**}

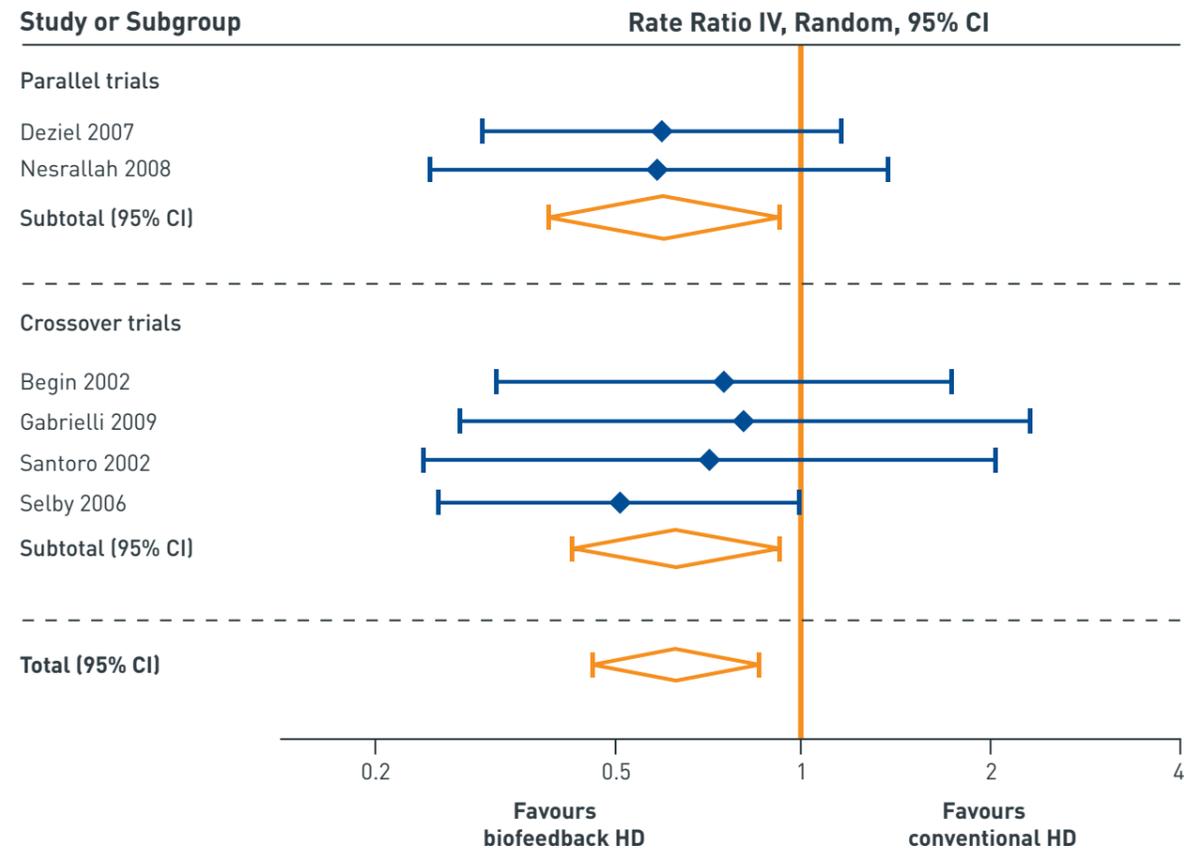


* Unadjusted Kaplan-Meier analysis: all-cause mortality, n=208⁴

† Hydration status (Δ HS) of all patients was objectively measured with whole-body bioimpedance spectroscopy. Normohydration = $-7\%<\Delta$ HSrel $<7\%$. Non-hyperhydrated and hyperhydrated groups were separated retrospectively based on body composition monitor measurement.⁴

BIOFEEDBACK DIALYSIS SIGNIFICANTLY REDUCES THE NUMBER OF HYPOTENSIVE EPISODES BY 39%⁶

META-ANALYSIS OF IDH REDUCTION [6 STUDIES]^{6*}



Adapted from Nesrallah, 2013⁶

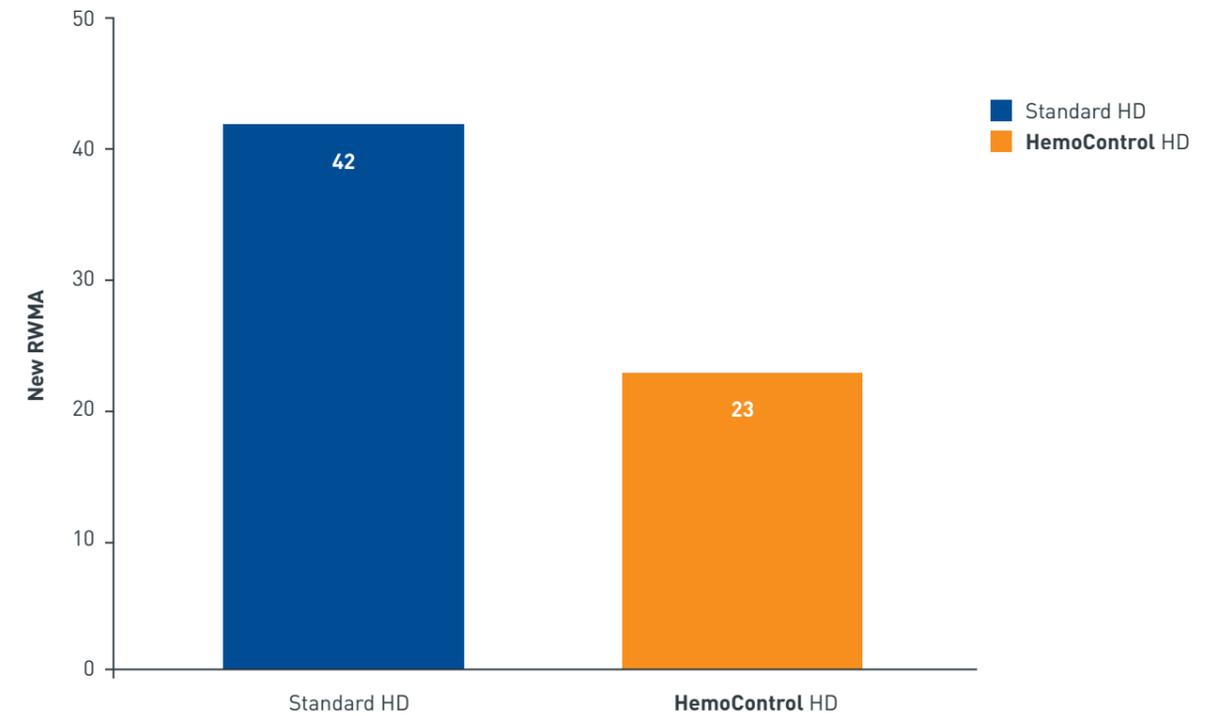
- The **HemoControl** modality on the **Artis Physio** system is a biofeedback control of blood volume⁶ – it significantly reduced the number of IDH episodes in HD patients (risk ratio 0.61; 95% CI, 0.44-0.86; I2=0%)⁶
- The **HemoControl** modality was shown to be the favoured HD treatment versus conventional HD in a meta-analysis of 6 studies⁶

WHAT COULD THIS MEAN FOR PATIENTS LIKE MARY?

* Results from a meta-analysis of 6 clinical studies [2 randomised, parallel-arm, controlled; 4 randomised, crossover] which reported IDH frequency. Patients were aged >18 years; n ranged from 7 to 60; duration ranged from 4 to 24 weeks. Important sources of bias within studies included lack of blinding of all participants, study personnel and possibly outcome adjudicators and analysts. Data from published randomised studies of biofeedback dialysis lacked sufficient power to evaluate its impact on major outcomes such as survival and hospitalisation rates⁶

HEMOCONTROL TREATMENT REDUCES CARDIAC EFFECTS FREQUENTLY OBSERVED DURING HD SESSIONS⁷

IMPACT OF USE OF THE **HEMOCONTROL** MODALITY ON RWMA^{7*}



Adapted from Selby, 2006⁷

- **HemoControl** treatment reduces the number of RWMAs developed during HD sessions (OR, 1.8; 95% CI, 1.1-3.0)⁷

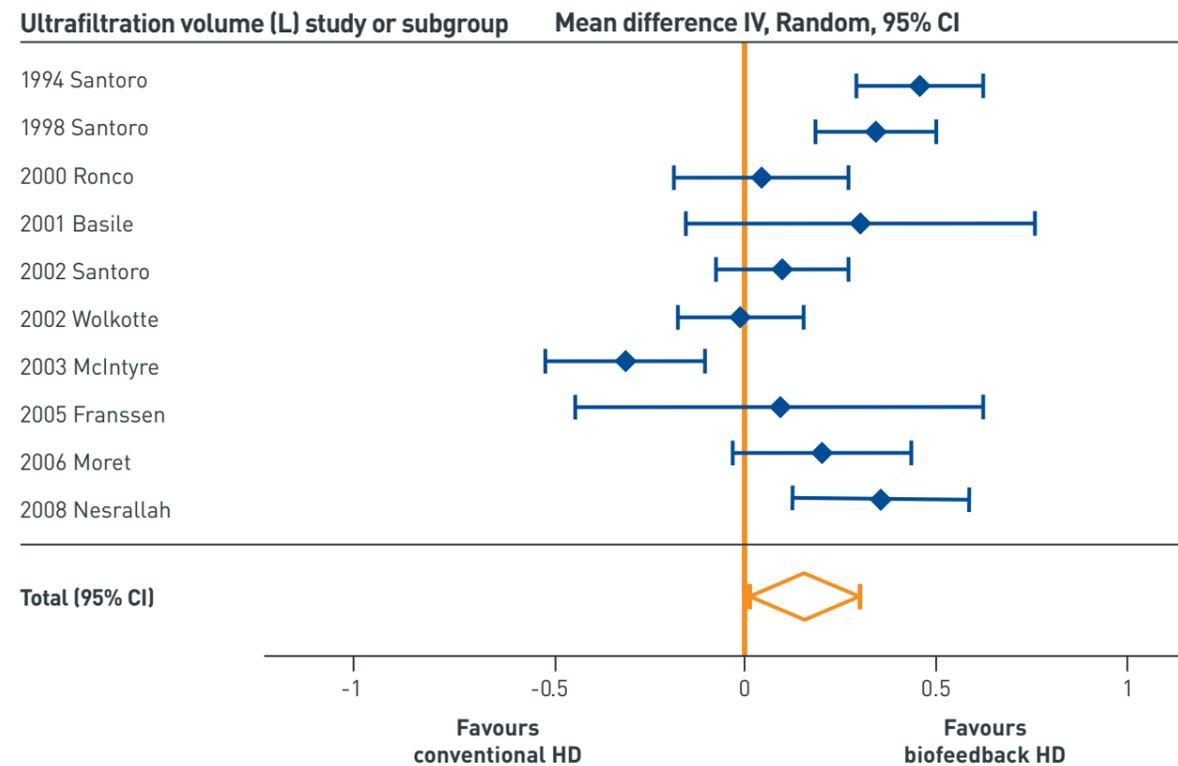
HEMOCONTROL TREATMENT MAY HELP ALLEVIATE IDH-RELATED CV RISK IN PATIENTS LIKE MARY

* Results from a 2-week, randomised, crossover clinical study in 8 male patients; all were long-term HD patients (>12 months), were prone to IDH, and had LV hypertrophy.⁷

HEMOCONTROL TREATMENT MAY MAKE CLINICAL TARGETS SUCH AS FLUID BALANCE MORE ACHIEVABLE⁸

Achieving the prescribed post-HD weight is a critical goal for doctors, nurses and patients.

META-ANALYSIS OF UF DURING HD^{8*}



Adapted from Winkler, 2011⁸

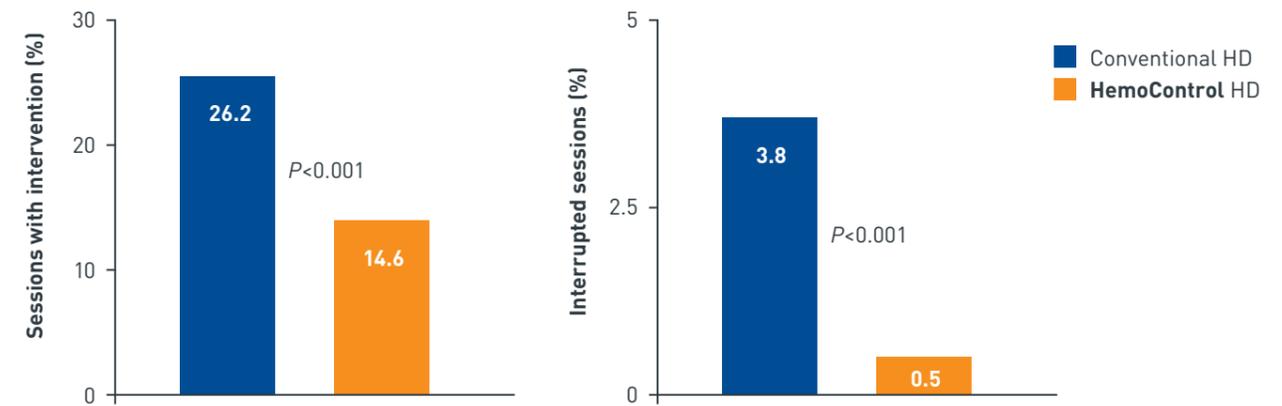
Fluid balance is better achieved with **HemoControl** HD versus standard HD:^{8,9}

- **HemoControl** treatment allows a higher UF volume without IDH
- Fluid balance achieved due to decreased symptomatic IDH episodes and increased patient tolerance of HD

HEMOCONTROL TREATMENT MAY HELP PATIENTS LIKE MARY ACHIEVE THEIR PRESCRIBED POST-HD WEIGHT – A LONG-TERM PROBLEM FOR MANY

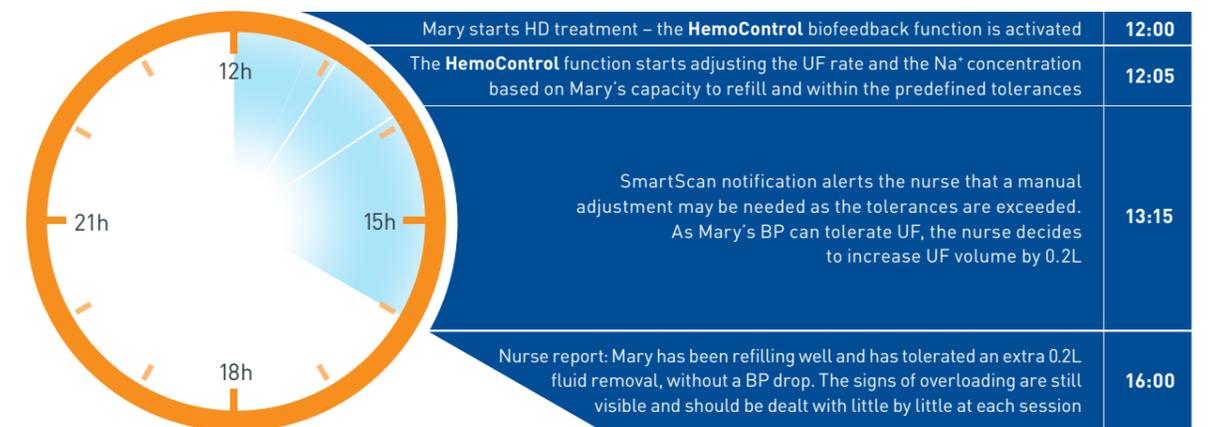
THE HEMOCONTROL MODALITY SIGNIFICANTLY REDUCES THE NEED FOR NURSE INTERVENTION AND INTERRUPTED SESSIONS DURING HD¹⁰

THE IMPACT OF THE HEMOCONTROL MODALITY IN HD^{10*}



Adapted from Doria, 2014¹⁰

EXAMPLE OF MARY'S IN-CENTRE HD SESSION WITH THE HEMOCONTROL MODALITY



HEMOCONTROL TREATMENT SUCCESSFULLY REDUCED IDH SYMPTOMS AND THE NEED FOR MULTIPLE FLUID BOLUSES, IMPROVING RECOVERY TIME AND REDUCING NURSE INTERVENTIONS

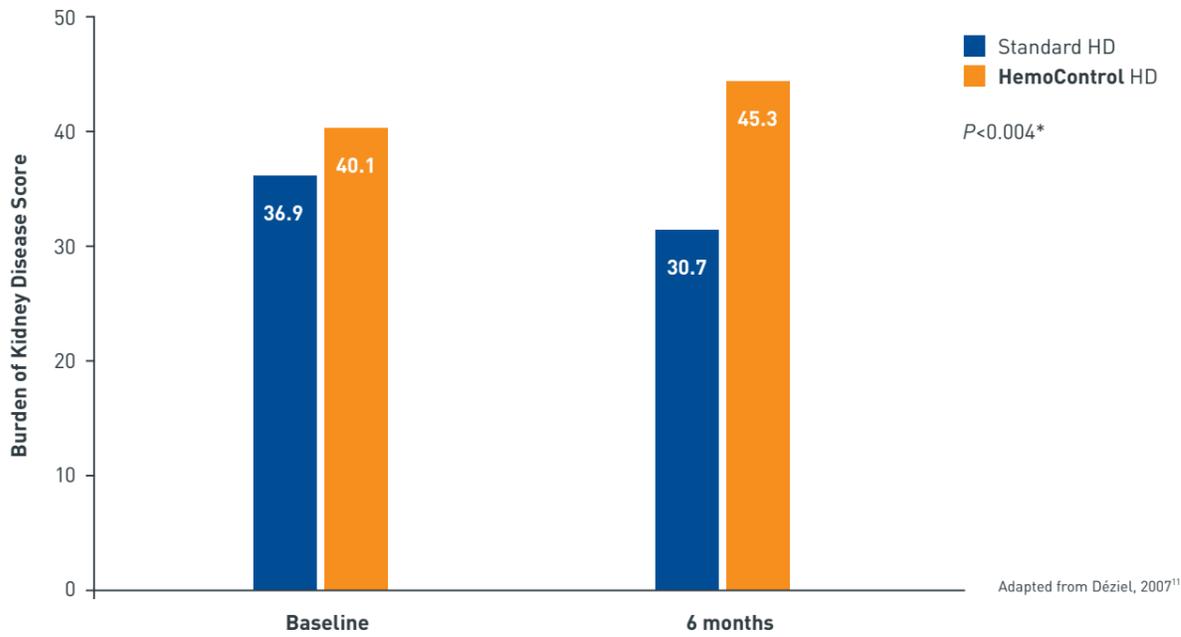
* Data report the pre- to post-dialysis weight (in Kg or L) expressed as mean ±SD over the total assessed dialysis⁸

* Results from a 6-month crossover study in 10 IDH-prone patients, aged 76.7±8.3 years. The primary endpoint was number of HD sessions in which physicians/nurses intervened to manage IDH episodes; external staff (1 physician and 1 nurse) reviewed the interventions to decide whether they were in accordance with protocol. A secondary endpoint was number of HD sessions ended before reaching the prescribed treatment time¹⁰

HEMOCONTROL TREATMENT MAY REDUCE THE BURDEN OF KIDNEY DISEASE¹¹

A reduction in IDH episodes and nurse interventions contributes to improved quality of HD¹¹

BURDEN OF KIDNEY DISEASE IN HD¹¹



HemoControl treatment has been shown to significantly reduce the burden of kidney disease (*P*=0.004)¹¹

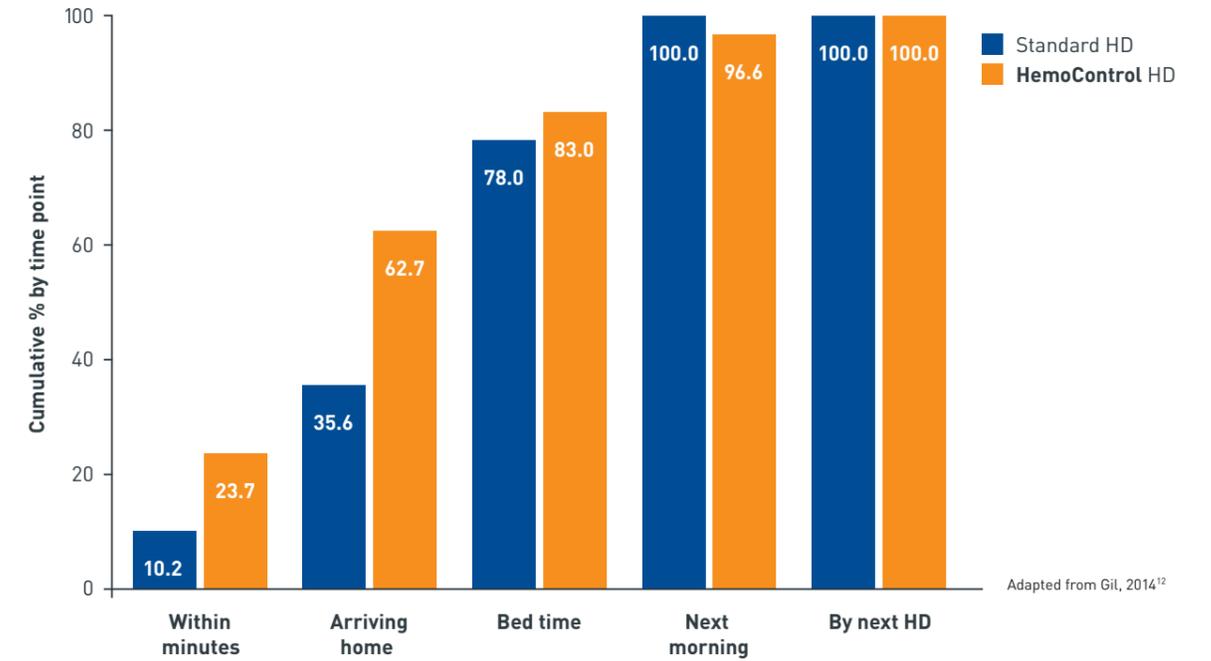
- This significant improvement was observed regardless of age, gender, ethnicity, hypotension and nursing interventions

IMPROVE TREATMENT TOLERANCE FOR PATIENTS LIKE MARY THROUGH SMOOTH, EVENT-FREE, IN-CENTRE HD WITH THE HEMOCONTROL MODALITY

* *P* value for comparison in mean score variation between the **HemoControl** group and the standard HD group.

HEMOCONTROL TREATMENT IS READY TO HELP PATIENTS LIKE MARY

RECOVERY TIME, POST-HD^{12*}



Recovery time from fatigue after HD is significantly shorter after an HD session using the **HemoControl** modality compared with standard HD (*P*=0.048)¹²

- without the **HemoControl** modality, Mary is often fatigued after in-centre HD and can barely enjoy her evening

SHORTER RECOVERY TIME LETS PATIENTS LIKE MARY FOCUS MORE ON THEIR LIFE AND LESS ON THEIR TREATMENT

* Results from an 18-week, multicentre, crossover clinical study in 60 patients, aged 57±11 years; all were chronic HD patients and were IDH-prone.¹²

THE **HEMOCONTROL** MODALITY IS AN INTEGRATED FUNCTION OF THE **ARTIS PHYSIO** DIALYSIS SYSTEM

- With the **HemoControl** modality, 39% of IDH episodes may be avoided⁶
- The **HemoControl** modality proactively adjusts UF rates and sodium concentration as a response to the variation of blood volume monitored throughout the HD session
- The reduction of IDH episodes is favourable to treatment tolerance and may help to facilitate clinic operations

INDIVIDUALISED TREATMENT WITH THE **ARTIS PHYSIO**

- The **Artis Physio** dialysis system provides all necessary treatment modalities and tools to take full benefit of individualised quality-assured dialysis



THE **HEMOCONTROL** MODALITY MAY HELP PATIENTS LIKE MARY ACHIEVE UF TARGETS AND ALLEVIATE IDH-RELATED CV RISK



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