Methods: DIALIZE China was a randomized, double-blind, placebo (PBO)-controlled, multicenter, phase 3b study of adults receiving HD 3-times weekly for kidney failure with pre-dialysis HK (serum potassium [sK+] >5.4 mmol/L) after the long interdialytic interval [LIDI] and >5.0 mmol/L after 1 short interdialytic interval). Following a 1-week screening period, subjects were randomized 1:1 to SZC or PBO (5.0–6.5 mmol/L on non-dialysis days), titrated over 4 weeks up to 15 g/day as required to achieve normokalemia (NK; pre-dialysis sK+ 3.5–5.5 mmol/L), prior to a 4-week evaluation and 2-week follow-up. The primary outcome was the proportion of responders (pre-dialysis sK+ < 4.0–5.0 mmol/L for at least 4 of 5 HD visits following the LIDI), without any rescue therapy during evaluation). Secondary outcomes included assessment of pre-dialysis sK+ values; safety outcomes included adverse events (AEs).

Results: Overall, 134 adults from China were randomized to SZC or PBO (each n=67); mean (SD) age was 54.7 (11.3) years, 49% were male and mean weight was 60 kg. There was a significantly higher proportion of responders in the SZC arm (37.3%) vs PBO arm (10.4%) (estimated odds ratio [OR]: 5.10, 95% CI: 1.90–15.12, P<0.001). A greater proportion of subjects achieved NK on at least 3 of 4 LIDI visits during evaluation with SZC (73%) than with PBO (30%). The probability of all pre-dialysis sK+ values being between 3.5 to 5.5 mmol/L was significantly higher with SZC vs PBO (estimated OR: 6.41, 95% CI: 2.71–15.12, P<0.001). AEs and serious AEs, respectively, occurred in 64% and 9% of subjects in the SZC arm, and 66% and 12% of subjects in the PBO arm, with no new safety concerns identified.

Conclusions: SZC is an effective and well-tolerated treatment for HK in Chinese individuals receiving HD.

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TH-OR17
Effect of ESRD Treatment Choices (ETC) on Home Dialysis Utilization Among Incident Dialysis Patients
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Background: The Advancing American Kidney Health Executive Order set ambitious targets for home dialysis in the US. CMS introduced payment models to incentivize home dialysis, including ETC, which launched in January 2021. Although ETC applies only to Medicare fee-for-service (FFS) beneficiaries, it has the potential to change provider behavior for all patients. We examined changes in use of home dialysis among all incident dialysis patients in the US according to provider ETC assignment.

Methods: ESRD patients newly randomly assigned to ETC participation at the Hospital Referral Region (HRR) level. Using USRDS data, we analyzed adult patients with incident ESRD who initiated dialysis from January 1, 2016 to March 31, 2022. We excluded patients dialyzing in a SNF or long-term care facility, prior transplant, or missing provider ZIP code. We examined the percentage of patients on home dialysis by ETC participation from first quarter (Q1) 2016 to Q1 2022 and used a change-point method to assess whether there was a change in the differences between ETC and non-ETC markets during this period.

Results: In total, 766,055 patients were studied (31% ETC participants). Before the assignment of ETC markets in late Q3 2020, the proportion of patients started on home dialysis was increasing steadily but was slightly lower among patients in ETC markets than among those in non-ETC markets (Figure). A change-point was found just prior to Q4 2020 (p=0.004 for before-after Q4 2020). After this time, home dialysis was used among patients in ETC markets but not among those in non-ETC markets. After the launch of ETC, a higher percentage started home dialysis in ETC markets (15.4% vs. 14.5%).

Conclusions: The ETC payment model for Medicare FFS beneficiaries appears to have affected practice patterns for all incident dialysis patients. After its introduction, the proportion of patients starting home dialysis continued to increase in ETC markets and flattened in non-ETC markets.

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TH-OR18
The Effects of Implementing a Home Dialysis Project ECHO
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Background: Insufficient home dialysis education and mentorship are suggested barriers contributing to the under utilization of home therapies in the U.S. The National Kidney Foundation KDOQI Home Dialysis task force hypothesized that the use of a Project ECHO (Extension for Community Healthcare Outcome) program may enhance home dialysis uptake.

Methods: In partnership with Comagine Health, the NKF home dialysis ECHO project delivered 20 interprofessional education sessions virtually to 108 registrants from 19 dialysis centers derived from 2 ESRD network regions over 1 year. Our home dialysis curriculum has previously been published. Sessions were divided into case discussion and didactic teaching moderated by the home dialysis hub team. Using a mixed method before and after approach, we described the differences in home dialysis rate and knowledge utilization.

Results: 108 healthcare workers registered for our home dialysis ECHO project. The median number of participations was 1.5 (range = 16). The registrants represented a diverse background (including: dietitian [n = 15], facility administrator [n = 20], nurse [n = 16] and social worker [n = 18]). Using exit questionnaires, the registrants consistently recommended ECHO sessions to their peers with the top sessions saturating amongst the themes of “establishing home dialysis culture”, “modality education” and “psychosocial adjustment”. At baseline, the participating centers’ median home dialysis rate was 9.28% (0.00 – 18.52%) [25-75%] which increased to 12.8% (0.00 – 24.6%) [Wilcoxon Signed Rank Test, p = 0.004] after the program.

Conclusions: We demonstrated that home dialysis ECHO project was a feasible strategy that was associated with a modest increase in home dialysis rates. A prospective examination of national adoption of such a strategy to physicians and dialysis clinic staff is warranted.

TH-OR19
High-Flow Arteriovenous Fistula and Myocardial Fibrosis in Hemodialysis Patients With Non-Contrast Cardiac Magnetic Resonance Imaging
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Background: Myocardial fibrosis is a critical, often maladaptive feature of cardiac remodeling that leads to heart failure (HF). In patients with chronic kidney disease, diffuse myocardial fibrosis is a typical uremic cardiomyopathy characteristic unrelated to ischemic heart disease. The role of high-flow arteriovenous fistula (AVF) in myocardial fibrosis in hemodialysis (HD) patients is very likely under-recognized.

Methods: Markers of myocardial damage, galectin-3 and N-terminal pro-B-type natriuretic peptide (NT-proBNP), were measured in 101 HD patients who underwent regular monitoring of intra-access Qa. AVF with Qa >2 L/min was considered a high-flow AVF. The degree of myocardial fibrosis according to intra-access Qa was assessed by native T1 relaxation times on cardiac MRI and serum galectin-3.

Key: TH - Thursday; FR - Friday; SA - Saturday; OR - Oral; PO - Poster; PUB - Publication Only
Underline represents presenting author.