

The SIMPLIFIED Registry Trial: Towards Delivery of Streamlined Dialysis Trials in the United Kingdom.

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BACKGROUND

Dialysis-requiring kidney failure is associated with an unacceptably high risk of death and with reduced quality of life. Several interventions in wide clinical use may impact on outcomes, but have not been assessed in randomised trials, including phosphate lowering, dialysate sodium concentrations and 'natural' vitamin D. Conducting trials in this population is challenging.

The SIMPLIFIED trial was developed in partnership with the UK Renal Registry to test the hypothesis that supplementation with high dose colecalciferol would reduce mortality in patients receiving dialysis. The first trial of its kind in the UK, SIMPLIFIED relies entirely on routinely collected data to capture trial outcomes, and has the potential to revolutionise the way in which dialysis trials are conducted in the United Kingdom and beyond.

Here, we report trial progress to date.

METHODS:

In this open-label prospective randomised trial, UK dialysis patients are allocated to colecalciferol 60,000IU fortnightly or to control.

SIMPLIFIED uses a streamlined design which captures all trial endpoints via routinely collected data sources including the UK Renal Data Collaboration (biochemistry, demographics and RRT status), Hospital Episode Statistics or equivalent (hospitalisation-requiring adverse events), National Statistics (death) and the UK and Ireland Association of Cancer Registries (incidence of malignancy). Follow-up is conducted remotely via phone, paper, internet or smartphone application based questionnaires.

RESULTS:

The first patient was enrolled in March 2017. At the time of submission, 47 centers of a target 50 were actively recruiting. Linkage of patient records with datasets from the UKRDC, NHS Digital and the SAIL Databank have been successfully established. An interim analysis of Vitamin D sampling on 206 subjects has demonstrated a clear separation of Vitamin D levels between the standard and treatment arms. Contemporary data on trial recruitment and progress, including plasma vitamin D separation between trial arms, will be reported at UK Kidney Week.

Obstacles encountered included delays in agreeing, funding and establishing data linkage, and agreeing coverage of excess treatment costs.

CONCLUSIONS:

SIMPLIFIED will be the first UK nephrology trial to use routine data exclusively for trial follow-up. Systems established for SIMPLIFIED serves as proof of concept for future streamlined registry trials in the United Kingdom.