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Life/2020—the future of kidney disease

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Chronic kidney disease (CKD) is a major emerging global public health problem that affects >850 million people and is currently one of the most common diseases worldwide [1, 2]. The large number of comorbidities that accompany CKD, large number of prescribed medications, poor mental health condition, high hospitalization rate and high mortality rate illustrate that the patient complexity of CKD is enormous, and surpassed all other medical specialities when nine markers of complexity were assessed [3]. Although significant progress has been made in the understanding of the causes of kidney disease and factors that drive progression to end-stage kidney disease, clinical decision support systems tailoring individual patient therapy may reduce the risk of progression and be used to monitor and change the therapy in individual CKD patients [4].

Currently, dialysis therapy is life-saving to ~3.4 million people worldwide (Figure 1). Since hemodialysis (HD) uses 2.5 million m³ of plastic, 204 billion litres of freshwater and 5 billion kWh of energy, the renal community needs to adapt this life-saving therapy to make it more sustainable [5, 6]. To plan for better and more sustainable future care of this frail patient group, the Life/2020 meeting is being organized in Gothenburg, Sweden, 1–4 April 2020.

The 4-day programme aims to put the CKD patient at the centre of all efforts by creating interactions among disciplines. It is exceptional through its up-to-date clinically relevant contributions along the patient pathway—from pre-CKD decision-making, including peritoneal dialysis, home HD, self-care and in-centre, to actual clinical insights and future developments (e.g. digital)—with a holistic patient focus. Lectures will be presented by world-leading international experts as well as by outstanding young scientists presenting truly novel approaches. The novel format, including rapid-fire lectures, case studies, hands-on workshops and a resident programme, is focused on intensive community activation and scientific interaction. The Life/2020 experience area offers delegates hands-on experience

and discussions on current and future developments. This is represented in the overarching conference theme ‘The future of kidney disease—A joint call for personalized patient care’. The resident programme offers participation in the conference as an opportunity for residents to liaise with renowned nephrologists through discussing direction-setting papers directly with senior and peer authors.

In this supplement of *Nephrology Dialysis Transplantation*, some of the main topics of Life/2020 are summarized. The supplement includes a review on specialized transition clinics, which may be implemented for monitoring patients’ symptoms and planning, according to patients’ preferences, during the vulnerable transition phase to dialysis [7]. Considering the early and rapid vascular ageing process that occurs in the toxic uraemic milieu [8], reduction of the cardiovascular burden is a focus of future renal replacement therapy. Canaud *et al.* [9] suggest that HD treatment in 2030 will be substantially more personalized to the patient, with a focus on cardioprotection, volume management, arrhythmia surveillance and avoidance of anticoagulation. In achieving such personalized treatment, it is likely that digitization with wearable health devices will be an important innovation in nephrology [10]. The complex management of patients with pregnancy, obesity and heart failure using more frequent HD is discussed by Sangala *et al.* [11], providing scholarly patient cases. To reduce the high cardiac disease burden in HD patients, optimization of sodium, volume and pressure control are challenging in the clinical management of fluid overload. New technologies that may facilitate the monitoring and treatment of fluid overload are reviewed by Pinter *et al.* [12]. Since a sedentary lifestyle and reduced physical activity associate with increased cardiovascular and overall mortality risk in dialysis patients, Mallamaci *et al.* [13] argue that personalized programmes for exercise training should be initiated in all dialysis centres.

Taken together, the Life/2020 symposium will highlight the need for more personalized (home-based) and sustainable

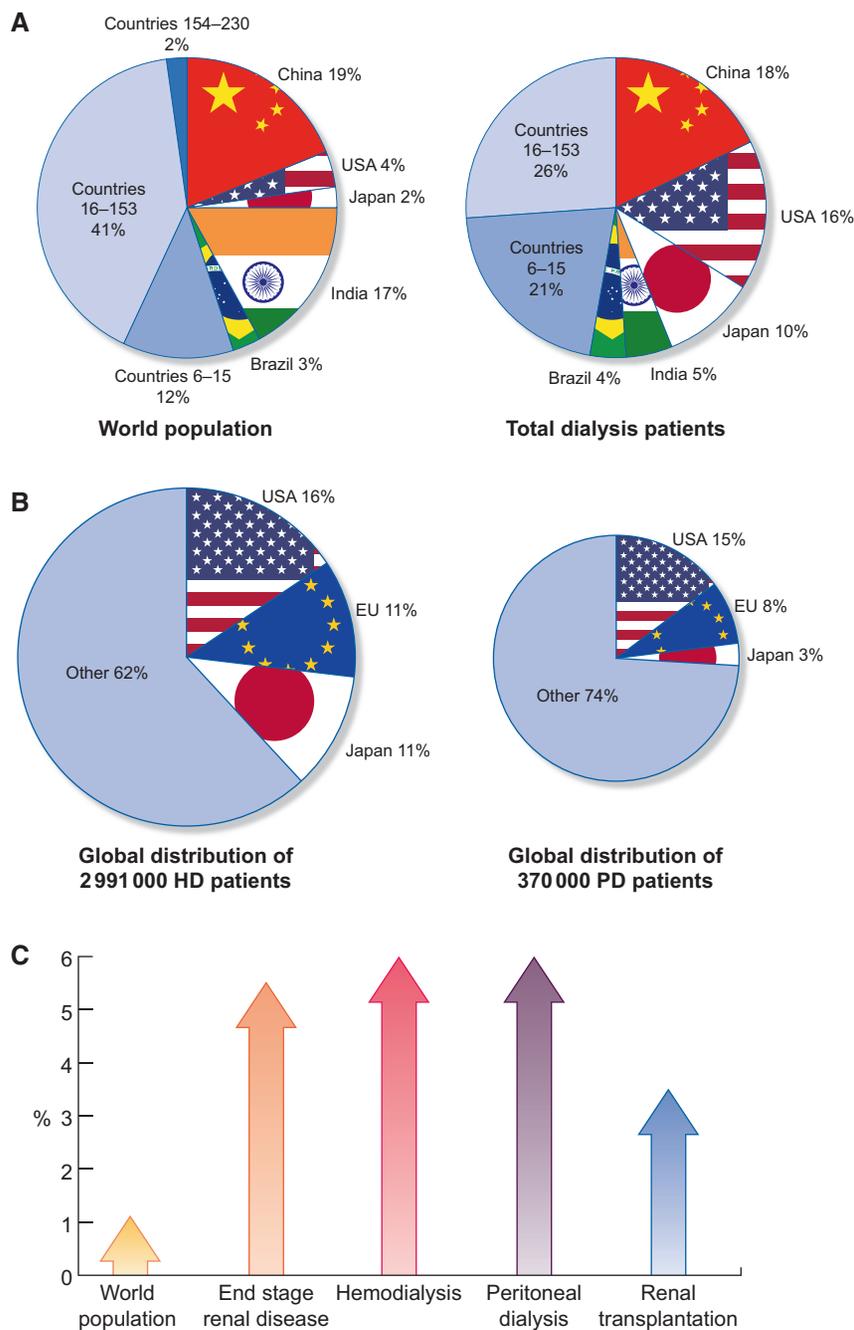


FIGURE 1: (A) Regional distribution of dialysis patients compared with the world population, (B) the global distribution of HD versus peritoneal dialysis (PD) patients and (C) estimated annual growth rates of end-stage renal disease, HD, PD and renal transplanted patients in relation to the estimated growth in the world population. Data from Fresenius Medical Care, *ESRD Patients in 2018—A Global Perspective*.

dialysis treatment in the future, with a clear focus on cardioprotection and volume management. The development of specialized transition clinics to guide patients through the vulnerable period of starting dialysis, personalized programmes for exercise training and the introduction of wearable electronic health devices may help the kidney community to achieve this goal.

CONFLICT OF INTEREST STATEMENT

P.S., D.F. and C.W. have received honoraria for lecturing from Fresenius Medical Care.

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