

### 【MSN-NST-TSN Joint Symposium 1-1】

## MSN: Strategies for Implementation of Home Dialysis and Potential Cardiovascular Benefit

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Home dialysis (PD and home-HD) utilization is still low in many countries except countries which practices PD first policy (Hong Kong, Thailand, Mexico). The reasons for variation in home dialysis penetration between countries are multifactorial which includes national healthcare policies, funding of dialysis providers, physician bias, lack of patient awareness and lack of support for assisted PD. Home hemodialysis (HHD) are still low in low- and middle-income countries due to the high cost.

Peritoneal dialysis has been shown to have potential cardiovascular (CV) benefit compared to HD. Hemodialysis has higher risk of death especially during the long interdialytic interval, and there is no difference in all-cause mortality in the week of PD. It has been shown HD is associated with repetitive myocardial ischaemia even in the absence of coronary artery disease. Myocardial stunning during HD is also an important factor in the development of heart failure.

There is also evidence of HD induced brain injury following intradialytic changes in diffusion metrics and brain metabolite concentration with a single HD session.

Strategies for implementation:

- i) Change in healthcare policies – PD first policies, PD preferred or PD favoured policies
- ii) Shared decision making between individuals, caregivers and healthcare professionals on the most appropriate initial modality, with the assistance of patient decision aid (PDA)
- iii) Economic drive and fiscal resources – incremental PD, incentives to nephrologists, surgeon
- iv) Laying out a comprehensive PD foundation – PD access services, structured PD training program, trained PD nurses
- v) Developing support system– remote patient monitoring, PD assistance, community, respite

Reference:

1. United States Renal Data System Report 2022
2. Perl et al, KDIGO executive Conclusions, Kidney Int 2023
3. Mc Intyre et al, Clin J Am Soc Nephrol 2008;3:19-26
4. Anazodo et al, J Am Soc Nephrol 2023 DOI: 10.1681/ASN.000000000000105

