

【Symposium 9-1】

Nature-related risks and green nephrology: Strategies to save money

自然風險與綠能潮流：攸關荷包的洗腎室因應策略

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Kidney disease and climate change have a bidirectional relationship: each worsening the other. Excessive heat and particle pollution, of which fossil fuel combustion is a major source, are potentially responsible for a significant attributable burden of prevalent chronic kidney disease and associated morbidity. Treatment of kidney failure, specifically via dialysis' high energy, water, and single-use plastic consumption, has among the highest ecologic footprint across the spectrum of clinical care. Specifically, a single hemodialysis treatment's carbon emissions are comparable to that of an average vehicle drive of 100 km.

In response to Earth's accelerating climate crisis, the European Union (EU) has launched first phase of world-first CO2 border tax. From 2026, there will be a CO2 fee applied to goods brought into the EU. There is also an emerging need to promote and support environmentally sustainable and resilient kidney care systems that function through accountable and sustainable low carbon health care. For example,

- Facilitate the development of environment-oriented daily clinical practice, such as paperless movement and digital planning, which saves money and space to store stationery and documents.
- Reduce and decarbonize travel because patient and staff transport is a significant contributor to a kidney unit's carbon footprint and is both costly and polluting.
- Reduce energy consumption of kidney care estates by performing an environmental audit of dialysis units, switching all lights to LEDs and install movement activation controls for lighting, and working with IT to ensure energy efficient monitors and computers.
- Offer patients the chance to have their own sheets/blankets during dialysis sessions. This dramatically reduces laundry costs, saves nursing time and is a good narrative about simple sustainability changes.
- Save water by ensuring that the reverse osmosis (RO) system does not discard excessive water and that RO rejected water is properly used to flush toilets or to supply laundry facilities.

