

Dialysis treatments go green

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Solar power can help offset high utility costs and make hemodialysis treatments more environmentally friendly, according to a study appearing in an upcoming issue of the *Clinical Journal of the American Society Nephrology* (CJASN). The findings point the way to a 'green dialysis' future where utilities and other consumables are no longer taken for granted but are used and reused wisely.

Patients and physicians may not be aware of the resource demands of dialysis treatments for kidney disease. But in fact, the treatments require a considerable amount of basic utilities such as water and power, so that a vast [carbon footprint](#) is left behind.

To see if solar energy might be used to help meet the rapacious power demands of dialysis equipment, John Agar, MBBS, Anthony Perkins, and Alwie Tjipto, MBBS (Geelong Hospital, Barwon Health, in Victoria, Australia) established a solar-assisted dialysis program in southeastern Australia that included four [home dialysis](#) machines. They chose the simplest solar model: array donation to and service draw from the national grid.

The researchers found that after the first 12 months of the program, power costs were reduced by 76.5%. They anticipate that in the coming years, the system will turn a profit in addition to generating effectively free power. Therefore, solar-assisted power appears to be feasible and cost-effective, and dialysis services may want to investigate whether they can take similar steps towards greener dialysis.

"Although not all locations, purchasing environments, or local administrations will be suitable or supportive, the twin issues of [environmental degradation](#) and climate change demand that simple ecoassessment is made and solutions sought," the authors wrote. The researchers are also advocate for applying water conservation and improved waste management systems to dialysis programs.

More information: The article, entitled "Solar-Assisted Hemodialysis," will appear online on January 19, 2012, [doi: 10.2215/CJN.09810911](#)

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