

LETTER TO THE EDITOR

## The EcoHD score: a quality improvement tool for the auto-evaluation of the environmental sustainability process in hemodialysis centers

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To the Editor,

International and national nephrology learning societies are playing a major role in advocacy and education for environmentally sustainable kidney care. The Green Nephrology group of the Société Francophone de Néphrologie Dialyse Transplantation (SFNDT) in 2023 published a guide of best practices for greener dialysis including 112 actions [1].

An auto-evaluation score, called the EcoHD score, has been developed based on these 112 actions, covering 10 domains (water, energy, air quality, waste, procurement, mobility, digital technology, biodiversity, ecosystem, and social conditions). The action items were classified as “mandatory,” “recommended,” or “advised.” Mandatory criteria were either regulatory criteria, with reference to the French environmental regulation or easy and straightforward to implement. Recommended measures were estimated to be of significant impact and advised measures were associated with a lower impact.

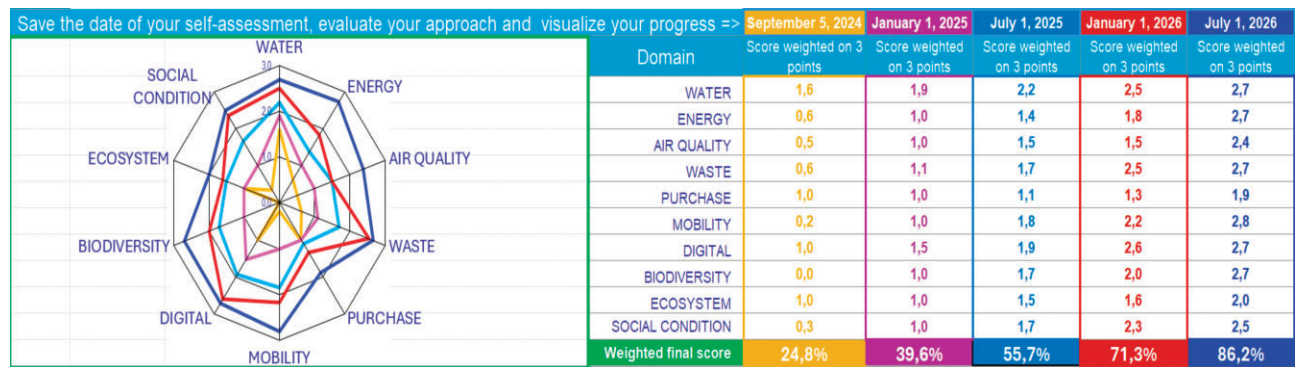
Seven members of the group from various backgrounds (nephrologist, dialysis engineer, or technician, nurse), indepen-

dently categorized the items: 49 classified as mandatory, 40 as recommended, and eight as advised. Subsequently, each item was assigned a weighting coefficient according to its status: 100% if mandatory, 60% if recommended, and 25% if advised. When using the evaluation tool to assess the implementation of sustainable practices in a center, each action is scored according to its the degree of implementation: uninitiated (0), planned (1), ongoing (2), achieved, or not applicable (3). For each item, the user selects the degree of implementation using a scroll down menu. Score calculation is performed automatically (Microsoft Excel), expressing the results as total weighted score across all domains or as a radar chart. The center's progress can be followed over time, reiterating the calculation. The scoring display of EcoHD in the initial evaluation and progression in the sustainable program is shown using an example in Fig. 1.

The validation phase, carried out in accordance with the Healthcare Quality and Safety Indicators validation criteria of the French High Authority for Healthcare [2, 3], involved 10

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**Figure 1:** The EcoHD tool: (a) score calculation for each domain (on 3 points) and weighted final score (as a percentage), with progression over time using different color schemes; and (b) visual representation of the score using a radar plot.

volunteer centers. The validation criteria of clinical relevance, feasibility, pertinence, and understanding of the actions were assessed through a short survey (a three-point Likert scale). Between 1.5 and 3.5 hours and a mean of 2.8 people were needed to complete the evaluation.

The EcoHD score is, to our knowledge, the first quality improvement tool available to assess environmentally sustainable practices in hemodialysis units. The score was created with the aim of helping dialysis centers to evaluate their sustainability program, irrespective of their baseline stage, and its progression over time. While assessing its items, it enables the team to identify areas for improvement and prioritize concrete actions based on local needs. In addition, the score may have an impact on team dynamics as seeing the progression of an approach is a strong motivating factor. The SFNDT guide has become the reference in France for environmentally sustainable practices in dialysis facilities and the EcoHD score will be distributed across the country free of charge. Interactive web and app versions are also under development. The current form of the tool is highly adaptable. Its calculation could be altered by the introduction of updated modifications that could be necessary over time. In addition, an English version is available on the ERA website, in which the referred legislation is European [4] and the SFNDT group is currently working in conjunction with nephrologists from other jurisdictions to adapt the tool to other settings in accordance with local policies (e.g. Canada, and other European countries having translated the guide in their language). The SFNDT's Green Nephrology group welcomes all collaborations with advocates wishing to adapt the tool to their local context.

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## CONFLICT OF INTEREST STATEMENT

None declared.

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