

SCOTTISH HAEMODIALYSIS UNIT SURVEY

The purpose of this survey is to collect information that reflects the carbon emissions generated by haemodialysis treatment centres in a way that can be shared and used as a basis to inform and improve our practice.

This survey is designed to be used in haemodialysis units providing maintenance dialysis to 'chronic' patients, and is **not** intended for use in ward areas providing acute dialysis services. The results of previous carbon footprinting studies have shown that, within dialysis services, 37% of the greenhouse gas emissions are generated from procurement (our use of consumables eg dialysis lines, syringes etc - and also their disposal), 21% arise from energy use (to heat and light buildings) and 20% result from associated travel (mostly patient journeys).

This is the first collection by a renal registry of comparative unit data on environmental performance and has been designed with support from the Centre for Sustainable Healthcare. The information generated by your responses will be held by the Scottish Renal Registry and, after processing, will be made available to all renal units.

You may find that the information you need to answer some questions is not easily available. That is fine since it will allow us firstly, to confirm if any system exists to record this data and then help us to develop a mechanism by which it can be accessed in the future.

If you have any questions please contact the Green Nephrology Fellow at tara.collidge@kintoa.org.

Thank you for taking part, we are very grateful for your time and effort.

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GENERAL

1. Please give the following details below:
 - name:
 - email address:
 - Unit name:
 - Parent unit:
 - Number of patients dialysed on your unit:
 - Types of dialysis offered:
 - a. haemodialysis (number of machines in use):
 - b. haemodiafiltration (number of machines in use):
 - Shift patterns offered:
 - a. am (Y/N)

- b. pm (Y/N)
- c. twilight (Y/N)
- d. overnight (Y/N)

INFRASTRUCTURE

Building construction:

- 2. BREEAM standards become compulsory on buildings constructed or renovated after 1st July 2008. Before this there was a NEAT standard. Is your building?
 - a. a new-build? (Y/N)
 - b. a refurbishment? (Y/N)
 - c. constructed after 1st July 2008? (Y/N)

 - d. if constructed after 1st July 2008 what BREEAM standard was met? (very good/ excellent / outstanding/don't know)
 - e. if constructed before 1st July 2008 what NEAT standard was met? ? (very good/ excellent / outstanding/don't know)

- 3. All public sector buildings over 1000m² are required to display, in a prominent place visible to the public, a Display Energy Certificate with a rating (A more energy efficient – D less energy efficient). What is your DEC rating? (A-D/DK) _____

Computers:

- 4. Do your computers meet Energy Star qualification, as recommended by Defra Quick Wins since 2007? (Y/N/DK)

- 5. Do you have automatic shutdown of PCs within your unit? (Y/N)
If yes, approximately what percentage?
 - a. <10%
 - b. 10-25%
 - c. 26-50%
 - d. 51-75%
 - e. >75%

Facilities:

- 6. Do you have adequate shower and changing facilities for patients and staff travelling by walking or cycling? (Y/N)

- 7. Is there adequate secure cycle storage on site? (Y/N)

Equipment:

8. Please give details of the number and models of haemodialysis machines in use in your unit

Model	Number of machines in use	Number with heat exchangers fitted
Kimal Nikkiso DBB-05		
Fresenius 5008		
Fresenius 4008		
Gambro Artis		
Gambro AK 96		
Gambro AK 200 Ultra S		
Gambro AK 96 Self-care		
Baxter Aquarius		
B Braun Dialog+		
Other (please state)		

Heating:

9. Do you have any thermostatic control of the heating within the dialysis areas? (Y/N/DK)

If yes:

Within your controlled zone what is included?

- a. ward (Y/N)
- b. OP clinics (Y/N)
- c. dialysis unit (Y/N)
- d. administration area (Y/N)

Can any of these be controlled in isolation?

- e. ward (Y/N/NA)
- f. OP clinics (Y/N/NA)
- g. dialysis unit (Y/N/NA)
- h. administration area (Y/N/NA)

Water:

10. Does your unit salvage reject water from dialysis? (Y/N/DK)

11. Is there other types of water salvage eg from roofs? (Y/N/DK)

Supplies:

12. Is there adequate space to allow bulk deliveries? (Y/N)

13. Does the unit have any facilities to compress waste on site eg a baler to reduce the volume (and hence frequency and cost) of waste collection? (Y/N/DK)

Telemedicine:

14. Does your unit have the infrastructure for
- a. video-consultation (Y/N)
 - b. tele-consultation (Y/N)
 - c. electronic patient record shared with hub unit (Y/N)

d. If yes please give details of use

15. Do all patients, where it is appropriate, have access to
- a. full health record? (Y/N)
 - b. Renal Patient View? (Y/N)
 - c. blood results? (Y/N)
 - d. OP letters? (Y/N)

CONSUMPTION DATA

Energy:

16. Does your unit have submetering to allow your use of energy to be quantified separately from the surrounding area? (Y/N/DK)

a. If yes, how much energy do you use (KWh per month)?

b. Are you able to access this information? (Y/N)

Please comment.

Clinical waste:

17. What is the weight (in tonnes) of the clinical waste (orange bags and sharps bins) produced by your unit each year? _____

18. Are you able to access this information? (Y/N)

Please comment.

19. Is any of your dialysis-associated waste not treated as clinical waste? (Y/N)

If yes, what consumables are these and how are they disposed eg bicarbonate bag, acid container, packaging?

Recycling:

20. Does your unit recycle? (Y/N/DK)

If yes what substances are recycled?

- a. Plastic (Y/N)
- b. Cardboard (Y/N)
- c. Aluminium cans (Y/N)
- d. Batteries (Y/N)
- e. Non-confidential paper waste (Y/N)
- f. Packaging from supplies (Y/N)
- g. Any waste or packaging generated from dialysis (Y/N)
- h. Other (Y/N)

If yes, please comment on the above

21. What is the weight (in tonnes) of recyclable waste produced by your unit each year? _____

Non-recycled, non-clinical waste:

22. What is the weight (in tonnes) of non-recycled, non-clinical waste produced by your unit each year? (e.g. black bags) _____

23. How is this waste disposed of

- a. Landfill
- b. Incineration + energy recapture
- c. Incineration – energy recapture
- d. Other

24. Are you able to access this information? (Y/N)

Please comment.

Water:

25. Is your unit able to measure water consumption? (Y/N)

26. If yes,

c. what is your consumption per year (m³)?

d. what is included (eg domestic, dialysis use)?

Supplies:

27. Do you require suppliers to report on distribution emissions? (Y/N/DK)

28. Do you require suppliers to remove packaging on delivery? (Y/N/DK)

29. What form does your dialysate take?

- e. Plastic containers – Y/N
 - f. Central acid (dialysate delivery) – Y/N
 - g. If you use plastic containers, please indicate the concentration and volume of each canister (e.g. 5 litres of 44 times concentration)
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Laundry:

30. What weight (in kilos) of laundry is generated per year?

31. Is your laundry processed on site? (Y/N)

32. If off site, how many miles away? _____

Patient Travel:

33. Are any patients not using the closest dialysis unit? (Y/N)
How many?

34. If so, for how many is this due to a lack of available dialysis slots in a closer unit?

35. Are the majority patients reviewed on a dialysis day, or do they make extra journeys for routine clinic appointments? Please comment and give an approximate percentage of patients who make additional journeys and how many times per year this population would be reviewed like this.

36. If the latter, how many additional journeys per month are generated for out patient review? (Y/N)
How have you estimated this?

SUSTAINABILITY GOVERNANCE

37. Does your unit have a Green Nephrology Local Representative? (Y/N)
38. Does your unit have a Green Nephrology Patient Representative? (Y/N)
39. Has your unit submitted a case study to the Green Nephrology Programme / Centre for Sustainable Healthcare within the last year? (Y/N)
40. Has your unit submitted a sustainable action plan to the Centre for Sustainable Healthcare? (Y/N)