Paperless Dialysis Patient Management Saves Thousands Of Trees Every Year

Stefano Mazzone[1], Victor Moscardo[1], Juergen Kastl[1] and Guido Giordana[1]

[1]NephroCare Coordination EMEALA, Fresenius Medical Care Deutschland GmbH, Bad Homburg, Germany

NephroCare

Introduction and aims

We want to calculate and demonstrate the environmental impact of modern data management systems in dialysis.

Methods

We analyzed the paper saving options of a patient data management system (EuCliD) in a multinational dialysis network.

Results

EuCliD is a clinical management system which unifies medical and economic information. Since it is specially designed to facilitate the processes of a dialysis unit, it enables us to constantly analyze the collected data for further improvement.

At the end of 2012 more than 600 clinics of our multinational dialysis network are equipped with this data management system.

Our target is to offer the best possible treatment and care options to our patients. The focus on data collection and its analysis has always been a priority for our organisation. Before the introduction of EuCliD relevant data like the prescription, therapy plans and diagnostic reports was printed on paper.

With the increase of dialysis patients, the amount of documents raised resulting in a huge amount of paper produced every day.

Considering basic patient documentation like dialysis prescription and diagnostic reports needed during a year the amount of paper counts 200 pages.

The documentation of our current number of dialysis patients sums up to almost 10 million sheets of paper per year.

Without EuCliD our dialysis network would have needed 49 tons of paper for its patient documentation per year (standard A4 sheet 80gr/m2). This equals the amount of more than 1.000 trees.

According to a Claudia Thomson research: "Recycled Papers: The essential guide" (Cambridge, MA: MIT Press, 1992)[1], 24 trees, 13 m high and 18 cm thick, are needed to produce 1 ton of common paper. Considering the 49 tons of paper needed for the 2012 our activities, EuCliD allowed the saving of 1.171 trees.

From the introduction of EuCliD in 2004 our multinational dialysis network saved 6658 trees till end of 2012.

Conclusions

The use of modern patient data management systems is mostly considered as a safety and management tool[2], but it has a significant impact on the environment as well. EuCliD adoption allowed data to run faster and safer between overall clinics and headquarter. These aspects firstly provide a safer and efficient patients service, allowing headquarter medical board and all network management to constantly assist clinics for any needs or issue. EuCliD makes also possible to analyze historical data in order to produce market forecast and to guide clinics management to the right way. In this context the adoption of a paperless technology allowed the dialysis network to save a big amount of trees, 13 hectare of wood equivalent.
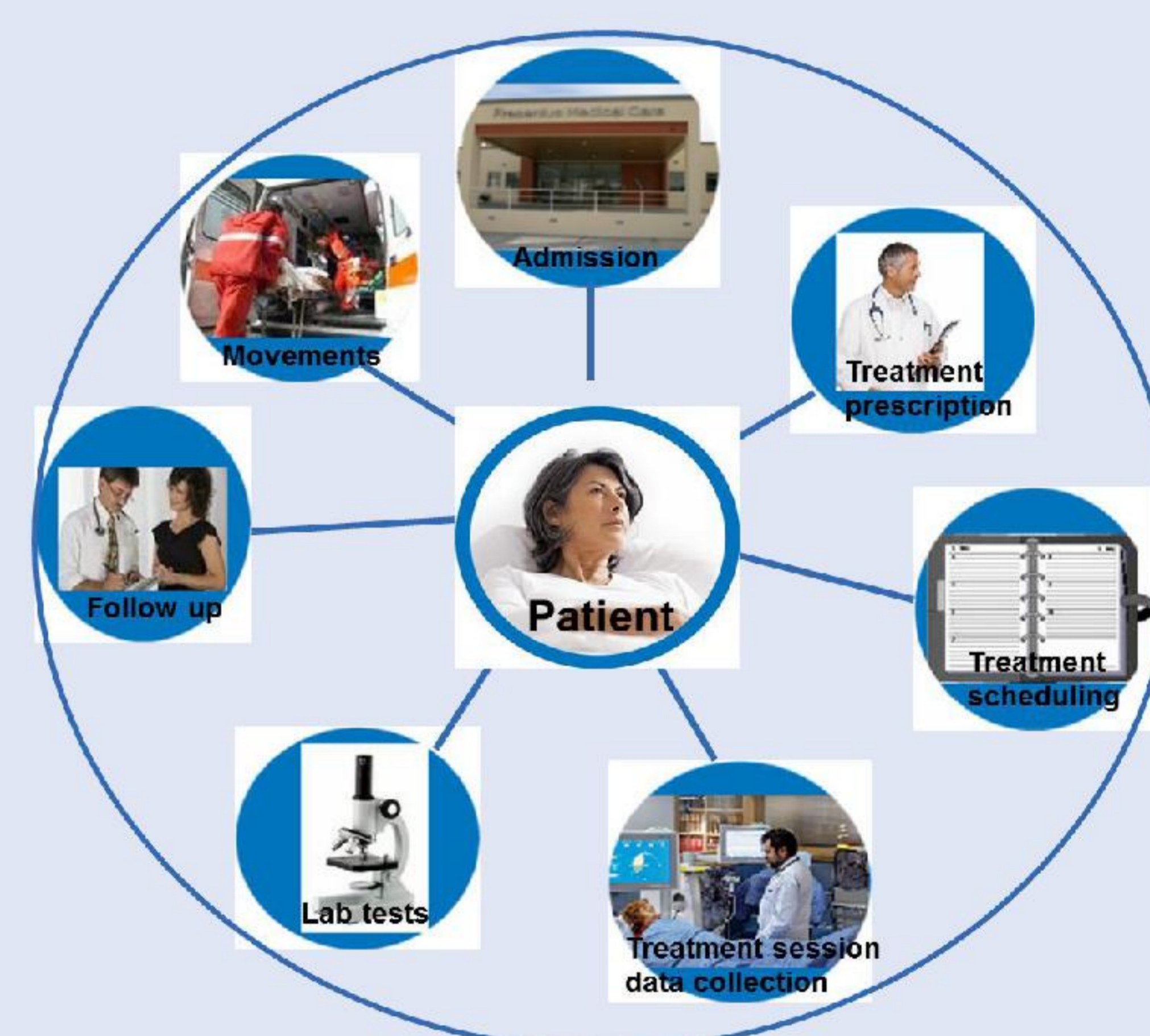

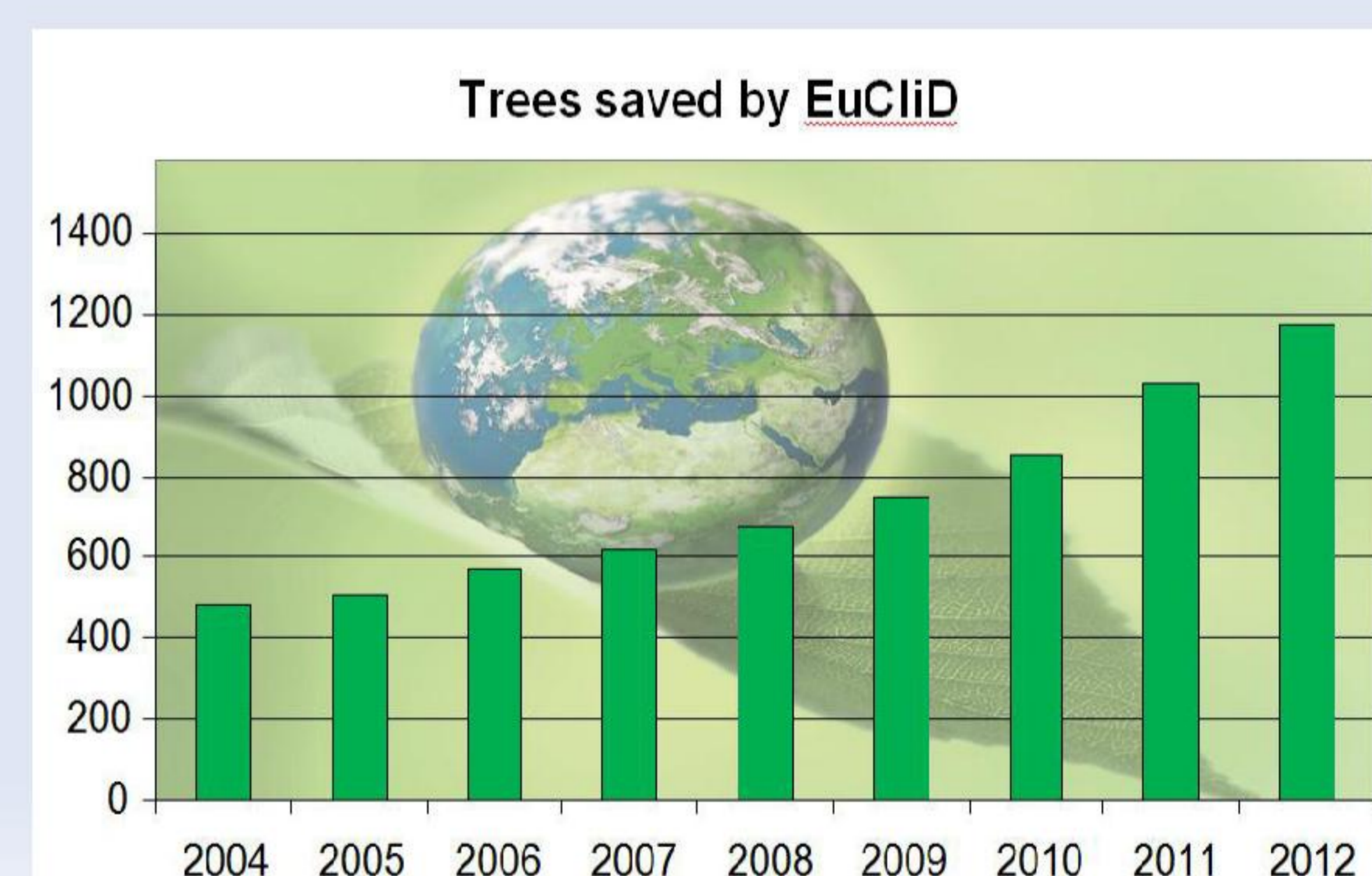Fig 1: Concept and processes of EuCliD

Fig 2: Trees saved p.a. by EuCliD from 2004 to 2012

Literature

1 – Thompson, Claudia. Recycled Papers: The Essential Guide. Cambridge: The MIT Press, 1992.

2 – Stopper, A. et al.: Managing complexity at Fresenius Medical Care Dialysis Service Centres across Europe. Blood Purification 2007; 25: 77 – 89.

FRESENIUS MEDICAL CARE