

NEW DIABETOLOGICAL EDUCATION METHOD AT THE HEMODIALYSIS STATION

Katalin Vizeliné Slavonics, Katalin Tölgyesi, Emília Mácsai PhD., Attila Benke MD.
B. Braun Avitum Hungary 3rd Dialysiscentre Veszprém, Hungary

INTRODUCTION

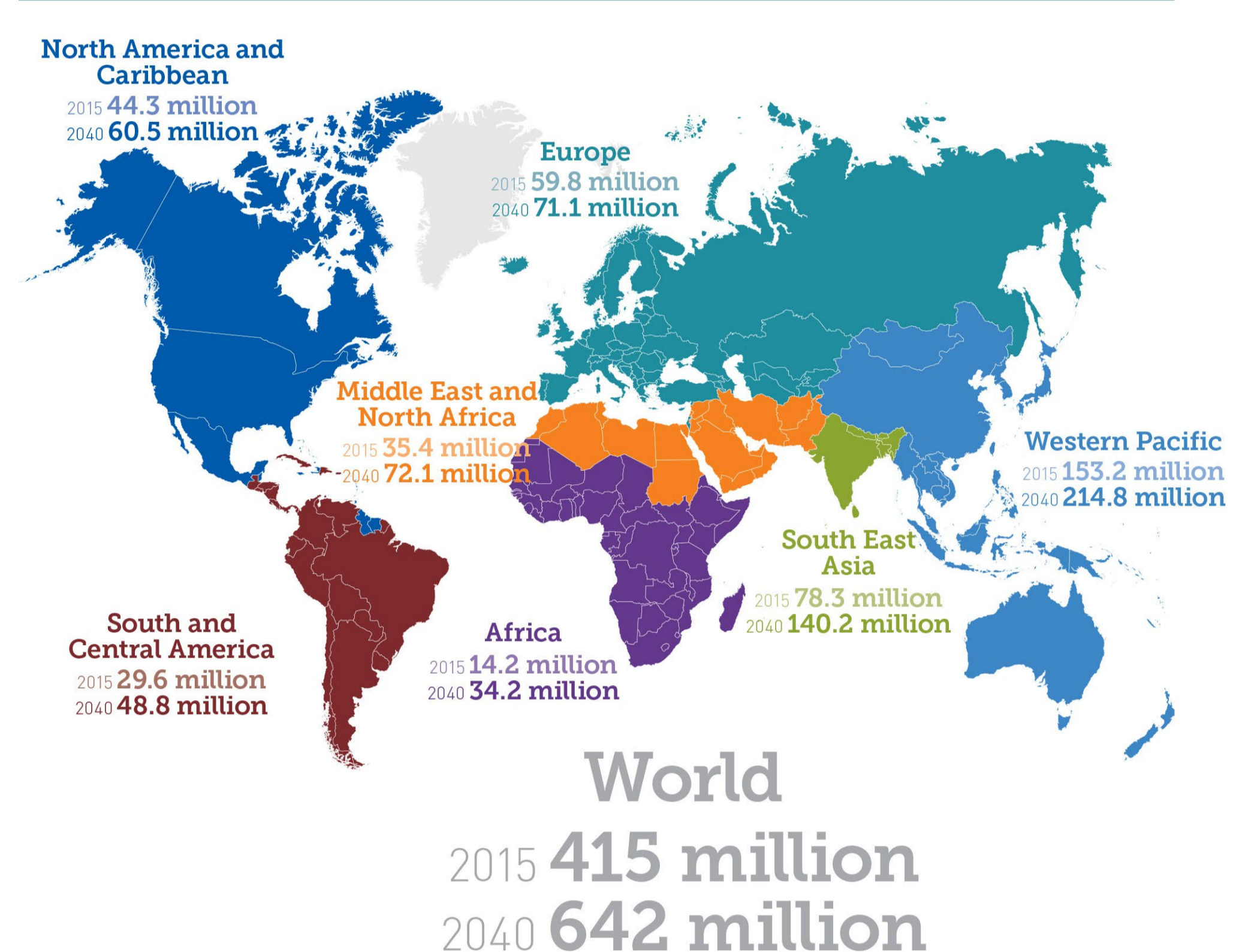
According to preliminary estimates of the International Diabetes Federation– atlas issued in May 2015– 592 million people worldwide will be affected by diabetes until 2035. This represents a 53 % increase compared to the current situation. Nowadays about 30–50% of hemodialysis patients live with diabetes, and a growing number of diabetic patients are entering the hemodialysis program, representing a new type of tasks for dialysis nurses. Frequent encounters with patients creates the possibility of refreshing their knowledge on the diabetes management. We aimed to assess the diabetological knowledge of our patients, and develop a specific educational system to improve their attitude about self-treatment.

QUOTE

"Diabetes is a 'silent epidemic', which are an invaluable amount of human, social and economic consequences."

L. Lazouras UN 2006.

Estimated number of people with diabetes worldwide and per region in 2015 and 2040 (20-79 years)



MATERIALS

Demography of patients

In 2015 about 1 in 3 patients treated with hemodialysis had diabetes, 40 of them were enrolled in the diabetes care dialysis center program on the basis of voluntary applications. When we started the program, we checked every patients' instruments : blood glucose meter, pens, blood sugar diary.

METHODS 1

The education score system

We developed a score system (patients' knowledge was scored 0–1–2) to evaluate their knowledge and to guide the following education.

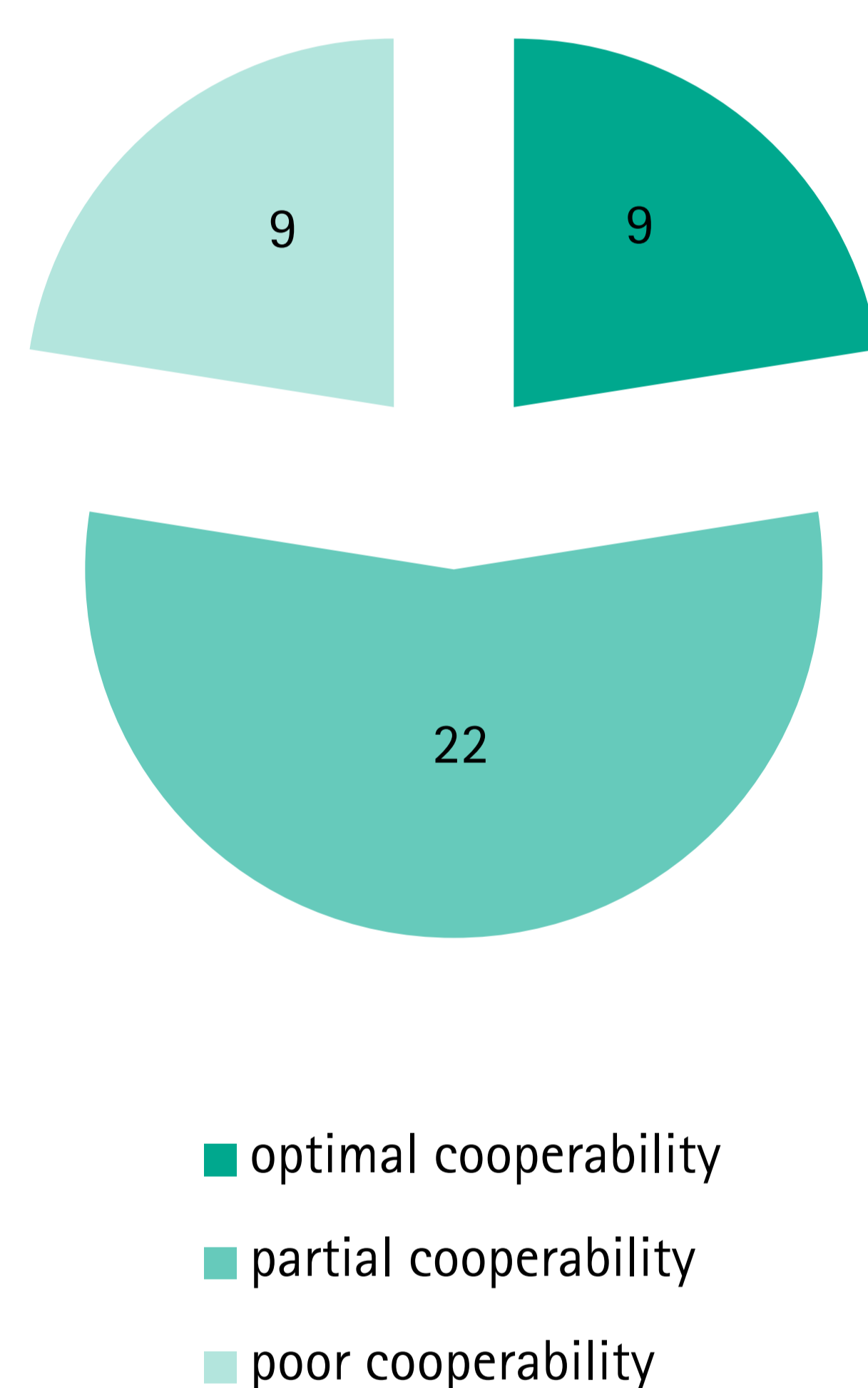
METHODS 2

Nurses' diabetological course

Dialysis nurses' training: Organised 1 hour training six times for 5 dialysis nurses with a professional diabetes nurse and a dietitian specialist.

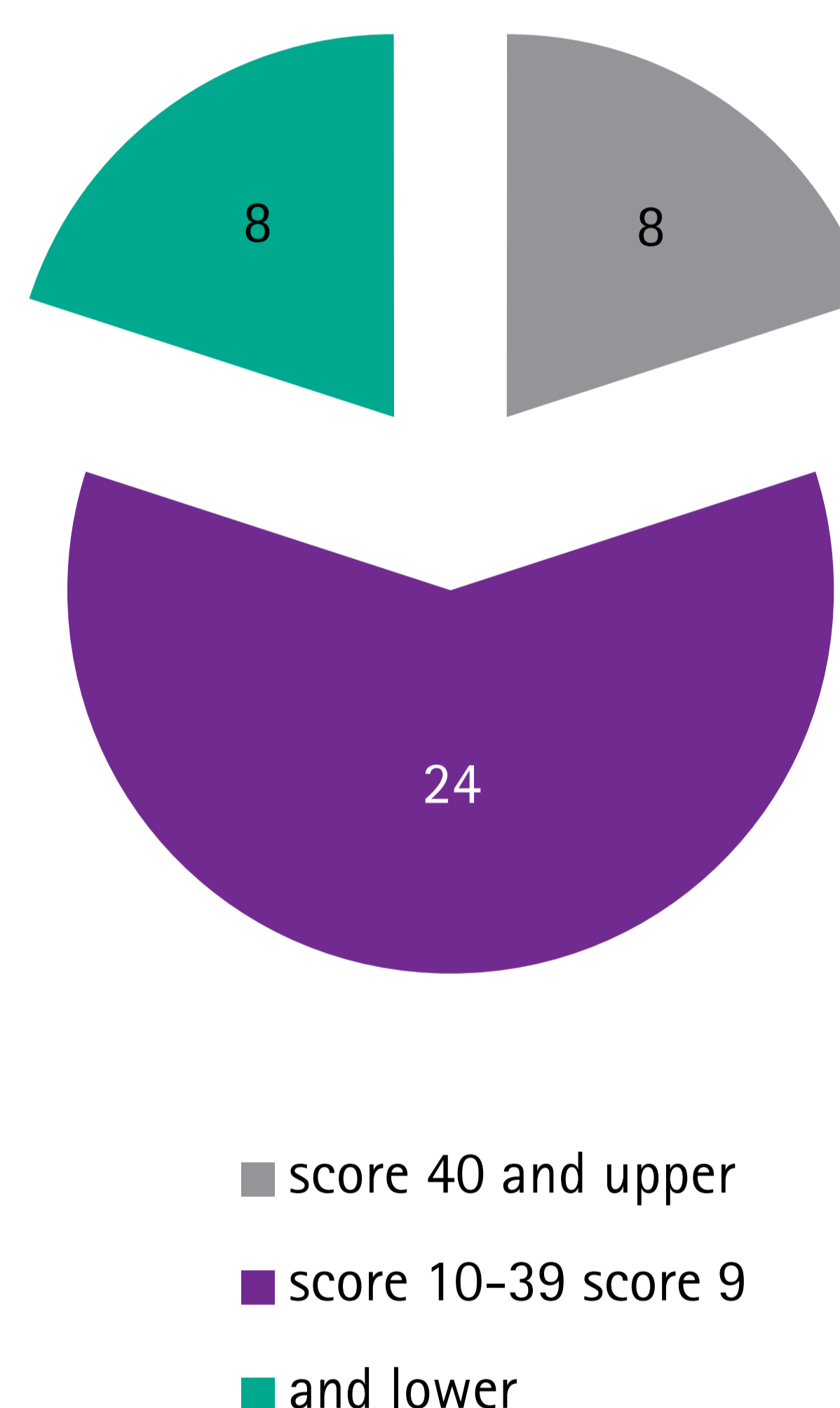
METHODS 3

Categories of educability



RESULTS 1

Diabetes education score initial result



RESULTS 2

- improvement in knowledge can be followed
- all the patients were involved in learning situation: technical and theoretical levels
- self-management skills improved (hypoglycemia treatment!)
- helping attitude of family members was also reinforced
- therapeutic modification of regimes can be made based on blood glucose diary result
- Patient satisfaction improved, it is convenient to give diabetological care during hemodialysis
- Patients' sense of security increased, as the dialysis center staff regularly checked their carbohydrate metabolism

CONCLUSION

The described simple method make it possible to assess the level of knowledge of hemodialysis patients with diabetes quickly and – during follow-up – in a comparable way. A structured patient education can be used as a guideline, the gaps could be repaired as soon as possible. The periodic repetition can help to avoid dangerous changes of carbohydrate metabolism.

EVERYDAY PRACTICE

- Patients' knowledge can be assessed on the basis of the score-system. It makes it possible to quantify their knowledge, so it is possible to keep track of the development of the patient.
- Lack of knowledge (diet, the use of devices, etc.) can be easily recognised, surprising score results were observed regardless of their school qualifications.
- During dialysis sessions 3 times a week, patients at almost the same diabetes knowledge level were grouped into the same room, and 2 nurses in a shift could teach patients during the four-hour treatment.
- The development of knowledge was constantly seen, repetition was also possible, like a diabetes club.
- On a weekly basis, we checked their blood sugar recordings, tools, and they could meet with a diabetologist.

REFERENCES

- Couillerot-Peyrondet AL, Sambuc C, Sainsaulieu Y, Couchoud C, Bongiovanni-Delarozière I.A comprehensive approach to assess the costs of renal replacement therapy for end-stage renal disease in France: the importance of age, diabetes status, and clinical events. Eur J Health Econ. 2016 May 5.
- Smits KP, Sidorenkov G, Bilo HJ, Bouma M, van Ittersum FJ, Voorham J, Navis G, Denig P. Development and initial validation of prescribing quality indicators for patients with chronic kidney disease. Nephrol Dial Transplant. 2016 Jan 6. pii: gfv420.
- Hyland KA, Greiner MA, Qualls LG, Califf RM, Hernandez AF, Curtis LH. TRENDS IN THE CARE AND OUTCOMES OF MEDICARE BENEFICIARIES WITH TYPE 2 DIABETES,2002-2011. Endocr Pract. 2016 Apr 4.
- Tone Britt Hortemo Østhus, Nanna von der Lippe, Lis Ribu, Tone Rustøen, Torbjørn Leivestad, Toril Dammen, Ingrid Os. Health-related quality of life and all-cause mortality in patients with diabetes on dialysis BMC Nephrol. 2012; 13: 78.
- Mohammadkarim Bahadori, Fatemeh Ghavidel, Shahla Mohammadzadeh, Ramin Ravangard. The effects of an interventional program based on self-care model on health-related quality of life outcomes in hemodialysis patients. J Educ Health Promot. 2014;
- Connie M. Rhee, Angela M. Leung, Csaba P. Kovessy, Katherine E. Lynch, Gregory A. Brent, Kamyar Kalantar-Zadeh. Updates on the Management of Diabetes in Dialysis Patients. Semin Dial. 2014