

# Introduction

- Restricting food intake while at dialysis may be a contributing cause for low albumin levels seen in end-stage renal disease patients in the United States.<sup>1</sup>
- Serum albumin < 4.0 g/dL is observed in more than 60% of hemodialysis patients in the United States and has been associated with poor outcomes and higher mortality rates among dialysis patients.<sup>1, 2</sup>
- There are few guidelines that address clinical and operational barriers to eating at treatment. However, some studies have shown that oral nutritional supplementation during dialysis can improve mortality.<sup>3</sup>
- In 2013, a program was created to address food consumption at treatment for patients at a large dialysis organization (LDO). The Eating at Treatment (EAT) program included guidelines and educational materials shared with registered dietitians at more than 1000 LDO facilities for optional use with patients and clinical staff.
- EAT guidelines addressed quantity and quality of food to consume at dialysis as well as operational barriers to eating at treatment. Education focused on kidney friendly, high-protein foods to consume at dialysis to promote adequate protein intake on dialysis days.
- Results from earlier surveys of facility management and medical directors in clinics that participated in EAT showed that food consumption patterns are evolving toward increased allowance of food consumption at dialysis.<sup>4</sup>

# Objective

To better understand the opinions of registered dietitians regarding eating at dialysis and changes in facility practices. To date, practices related to eating at dialysis at the LDO have been driven by facility management and medical directors.

# Methods

- Two online surveys were conducted (May 2011 and June 2014) among registered dietitians in more than 1000 clinics from the LDO regarding their opinions on food consumption at treatment.
- Dietitians were also surveyed to determine reasons for allowing or restricting eating on dialysis.
- The EAT program was implemented in 2013 and defined eating at treatment as before, during, or after dialysis. Guidelines and educational materials that addressed protein intake on dialysis days were provided to registered dietitians to use with patients and clinical staffs. Materials were available in both English (Figure 1) and Spanish versions.

# **Dietitians' Opinions are Changing on Food Consumption at Treatment** Maria Stasios, RDN, CSR, LDN;<sup>1</sup> Mary Burgess, MS, RD;<sup>1</sup> Becky Brosch, RD, CSR, LD;<sup>1</sup> Rich Mutell, MBA, MA;<sup>2</sup> Debbie Benner, MA, RD, CSR<sup>1</sup> <sup>1</sup>DaVita HealthCare Partners Inc, Denver, CO, USA; <sup>2</sup>APEX Health Innovations, Simi Valley, CA, USA

Figure 1. Examples of Educational Materials From the EAT Program.



## Results

- Analysis of responses of more than 1200 registered dietitians to the question "What is your opinion on allowing patients to consume foods while on dialysis?" (Table 1) showed a significant difference between the 2011 and 2014 surveys (chi-square, p < 0.001) and indicated a practice pattern change toward encouraging consumption of food at dialysis.
- Dietitians' top reported reasons for allowing food consumption on dialysis were: better able to meet caloric needs, concerns for patients with diabetes, and opportunity for teaching. Top reasons for not allowing eating were: potential increased chance of choking, gastrointestinal problems, and infection control. Reasons given for change in opinions of food consumption at dialysis between 2011 and 2014 are shown in Table 2.
- When compared to the results of the previously reported survey of medical directors,<sup>4</sup> it can be seen that while both medical directors' and dietitians' opinions regarding eating at dialysis improved through the EAT program, dietitians are more likely than medical directors to accept and encourage facility practices that allow eating at dialysis (Figure 2).

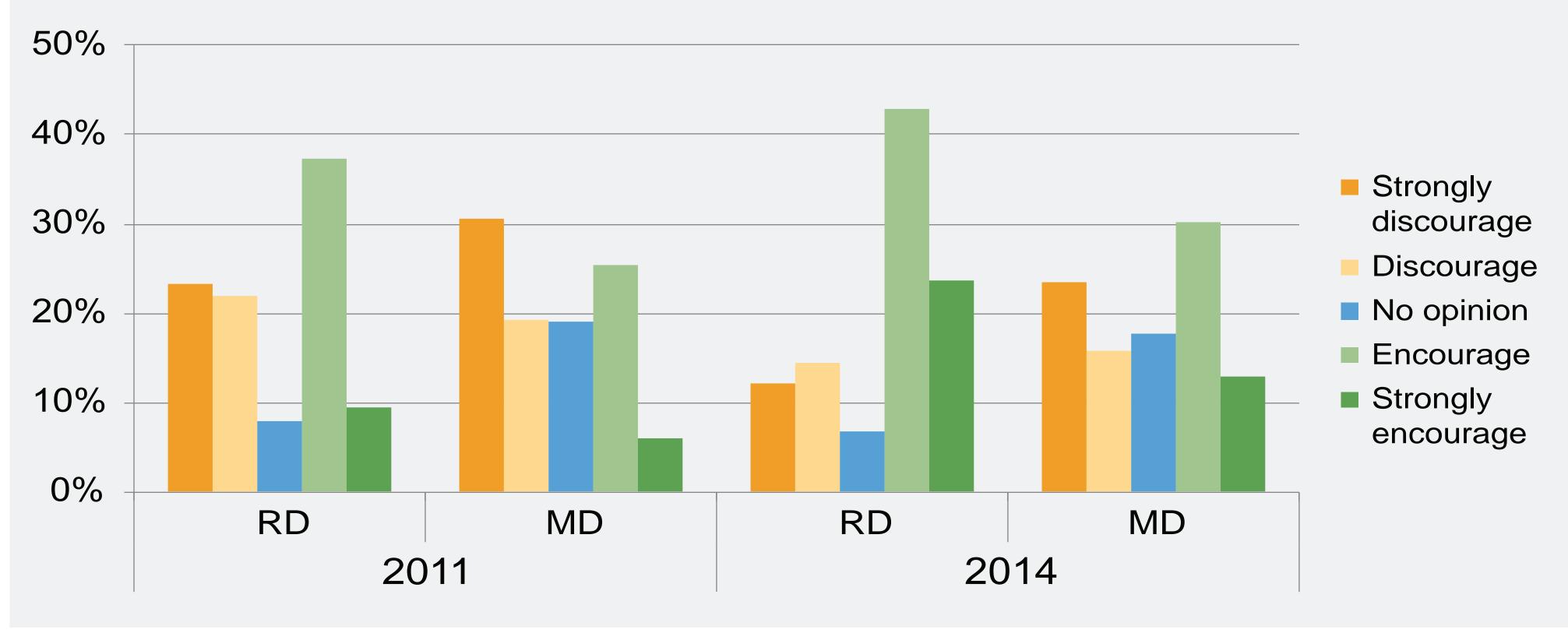
Registered	2011		2014	
Dietitian's Opinion	Count	%	Count	%
Strongly discourage	283	23.3	176	12.1
Discourage	267	22.0	211	14.5
No opinion	96	7.9	99	6.8
Encourage	453	37.3	625	42.9
Strongly encourage	115	9.5	346	23.7
Total	1214	100.0	1457	100.0

#### Table 1. Registered Dietitians' Responses to Survey Question **Regarding Food Consumption at Dialysis**

#### Table 2. Reasons Given for Change in Food Consumption **Opinions From 2011 to 2014**

Reasons	Number of Responses, n (%)
Increased emphasis on improving nutritional status	171 (50.7)
Increased emphasis on increasing intake on dialysis days	104 (30.9)
Effect of oral nutritional supplementation program on facility practices	89 (26.4)
Eating at Dialysis (EAT) guidelines and educational materials	67 (19.9)
Change in physician opinion/practices	48 (14.2)
Change in facility opinion/practices	118 (35.0)
Positive experience with patients eating at treatment	56 (16.6)
Negative experience with patients eating at treatment	93 (27.6)
Change in facility policy	59 (17.5)

#### Figure 2. Comparison of Pre- and Post-EAT Survey Results **Between Registered Dietitians and Medical Directors**



Abbreviations: MD, medical director; RD, registered dietitian

# Conclusions

- Registered dietitians' opinions regarding allowing patients to eat at treatment have evolved, with more dietitians encouraging food consumption at treatment.
- The EAT program provided education and guidelines and contributed to change in facility practices.
- Additional studies are warranted to:
- Further understand the risks and benefits of food intake during dialysis.
- Mitigate dietitians' stated top reasons for not allowing eating during dialysis.
- Determine if clinical outcomes are positively impacted by the implementation of the EAT program.

### References

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