



# Renal Dietitians Perceive Phosphate Binder and Low Phosphorus Diet Non-Compliance as Top Reasons for Above Target Serum Phosphorus Concentrations

Kathleen M. Hill Gallant<sup>1</sup>, PhD, RD; Doug Jermasek<sup>2</sup>, MBA; Shalabh Gupta<sup>2</sup>, MD

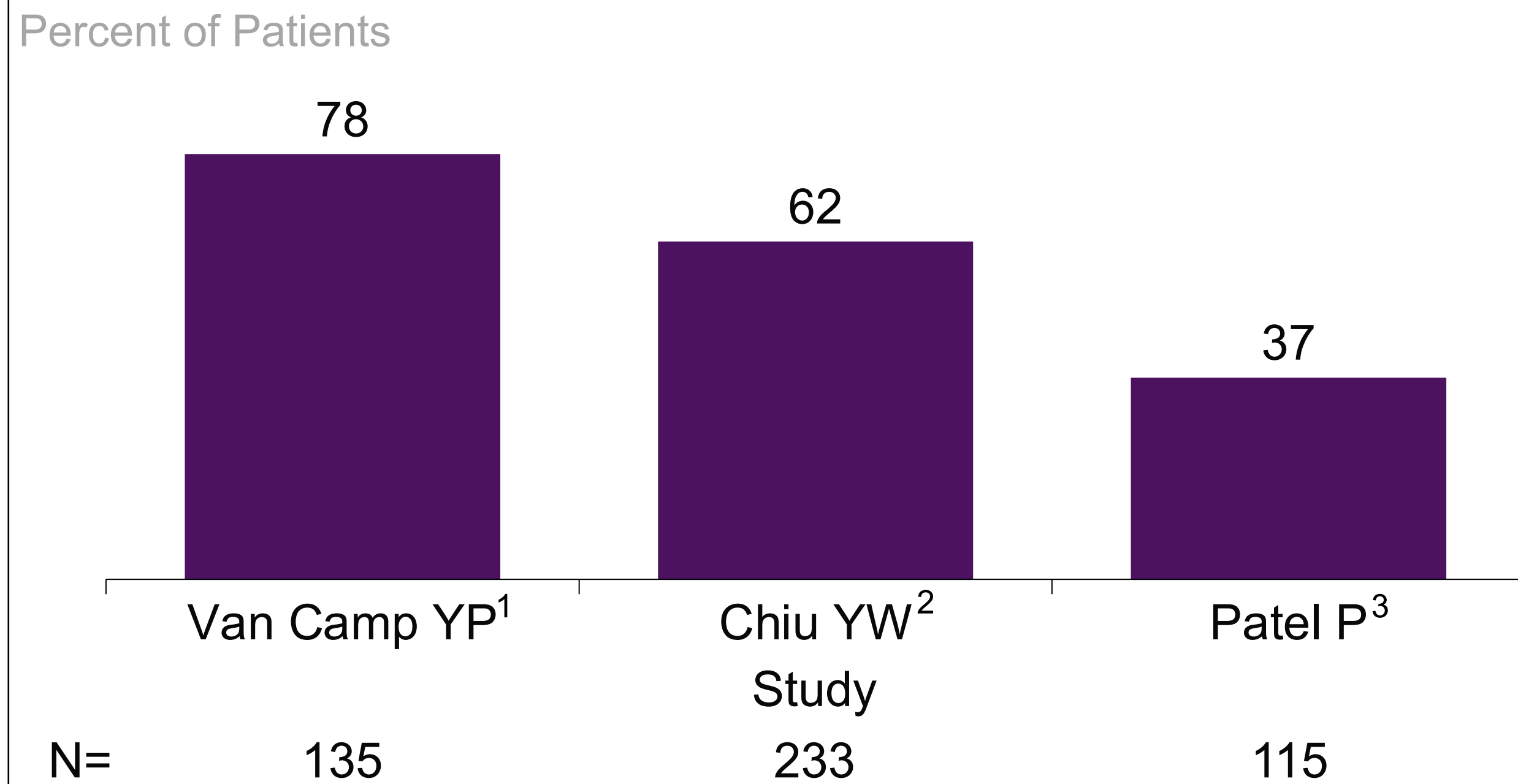
<sup>1</sup>University of Minnesota-Twin Cities; <sup>2</sup>Unicycive Therapeutics, Inc.



## BACKGROUND

- ~600k US patients with end-stage kidney disease (ESKD) undergo dialysis<sup>1</sup>
- Over 43% of these patients have serum phosphate (P) >5.5 mg/dL, which is associated with increased mineral bone disorder and death risk<sup>1</sup>
- Recent studies reported P binder non-adherence rates of up to 78% (Figure 1)<sup>2-4</sup>
- Oxylanthanum carbonate (OLC) is a novel P binder that has a reduced number and size of tablets and possibly improves palatability compared to other phosphate binder pills
- Using dietary strategies and P binders, renal dietitians play an important role in helping patients manage serum P and are close witnesses to patients' experiences and challenges with P management

**Figure 1. Proportion of Patients Non-Adherent to Phosphate Binder Therapy by Study**



<sup>1</sup> Van Camp YP. et al., J Nephrol. 2014. Dec.  
<sup>2</sup> Chiu YW. et al., Clin J Am Soc Nephrol. 2009. Jun.  
<sup>3</sup> Patel P. et al., Eur J Hosp Pharm. 2015. Jun.

## OBJECTIVE

We present results of a recent dietitian survey evaluating perceived reasons for non-compliance to P binder therapy and identifying the perceived appeal of OLC

## METHODS

- An online survey conducted in May 2022 (RealTime Dynamix™, Spherix Global Insights) evaluated responses from 100 US renal dietitians on their perceptions of why patients do not meet target serum P and their perceived reasons for non-compliance with P binder regimens
- Screening criteria included: Registered dietitians who had 2-40 years in practice; managing ≥50 CKD patients; ≥50% of time seeing patients

## RESULTS

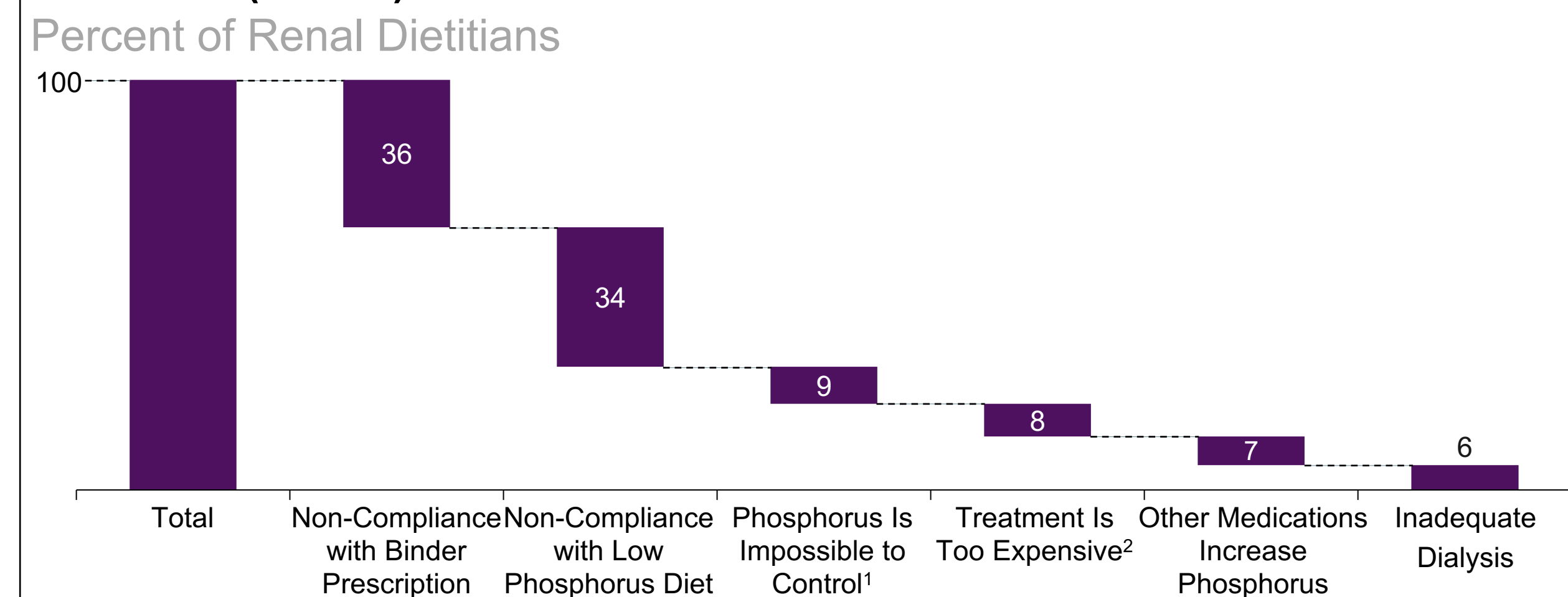
- Most dietitians surveyed practiced in a suburban setting (57%) and worked for large dialysis organizations (67%) (Table 1)
- When asked "In your opinion, why are dialysis patients often above target for phosphorus?" most dietitians responded that the two most common reasons were non-compliance to P binder prescriptions (36%) or following a low P diet (34%) (Figure 2)
- Leading reasons for P binder discontinuation include too many pills for sevelamer carbonate and calcium acetate binders, and formulation issues for sucroferric oxyhydroxide (Figure 3)
- When asked "In your opinion, why are patients not compliant with the binder regimen?", ~1/3 of dietitians attributed non-compliance with patients forgetting to take P binders with meals or snacks, and 16% attributed it to high pill burden
- 34% perceived the lower number of pills required as the most appealing aspect of OLC (Figure 4)

**Table 1. Demographics Table for Respondents (N=100)**

Category	Measures	Values
<b>Years in Position</b>	Mean (Years)	13
<b>Region</b>	Northeast (%)	32
	Central (%)	29
	West (%)	20
	Southeast (%)	19
<b>Community Type</b>	Suburban (%)	57
	Urban (%)	30
	Rural (%)	13
<b>Size of Dialysis Organization</b>	Large <sup>1</sup> (%)	67
	Small/Mid-sized <sup>1</sup> (%)	28
	Hospital (%)	5

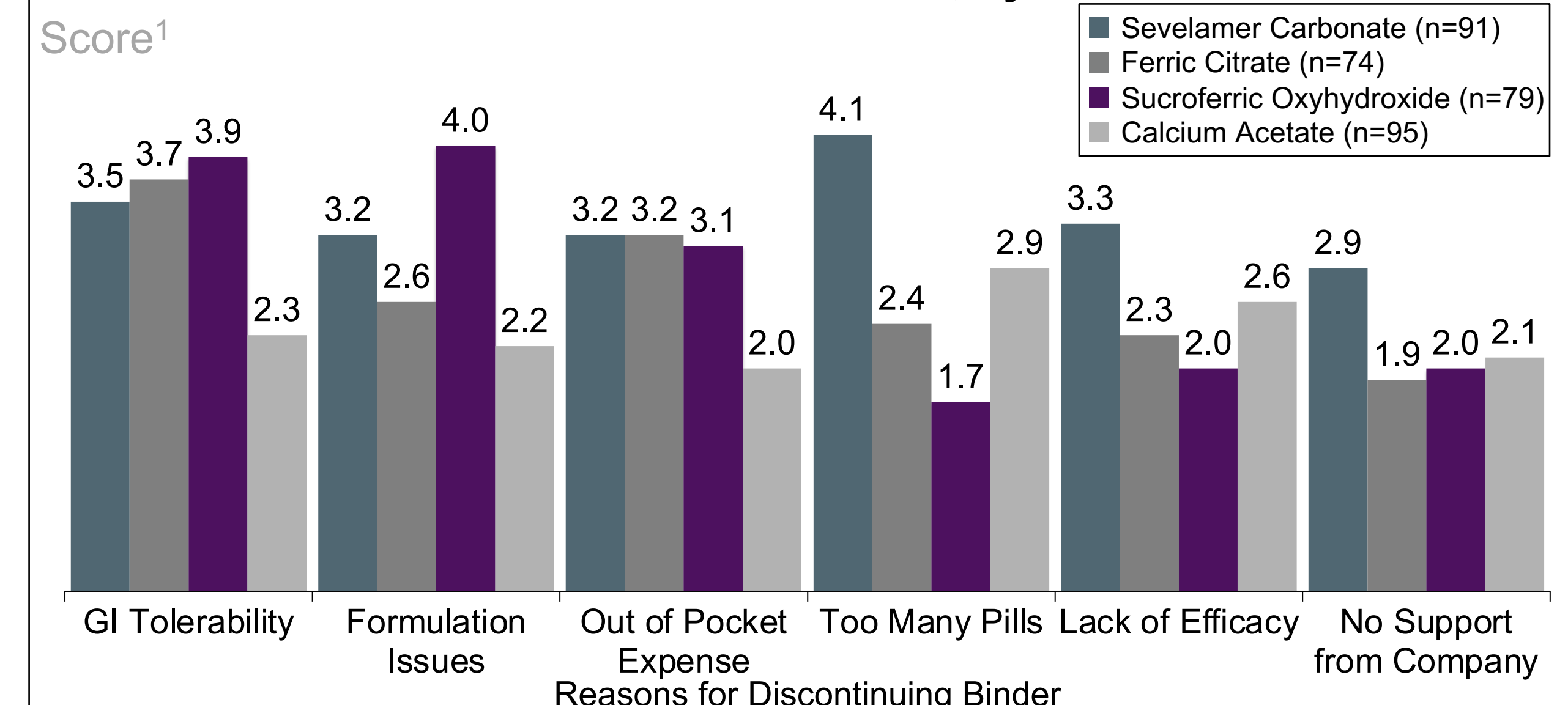
<sup>1</sup> LDO is defined as either DaVita or Fresenius, SDO/MDO is all others that are not hospital

**Figure 2. Reasons for Elevated Serum Phosphorus as Perceived by Renal Dietitians (N=100)**



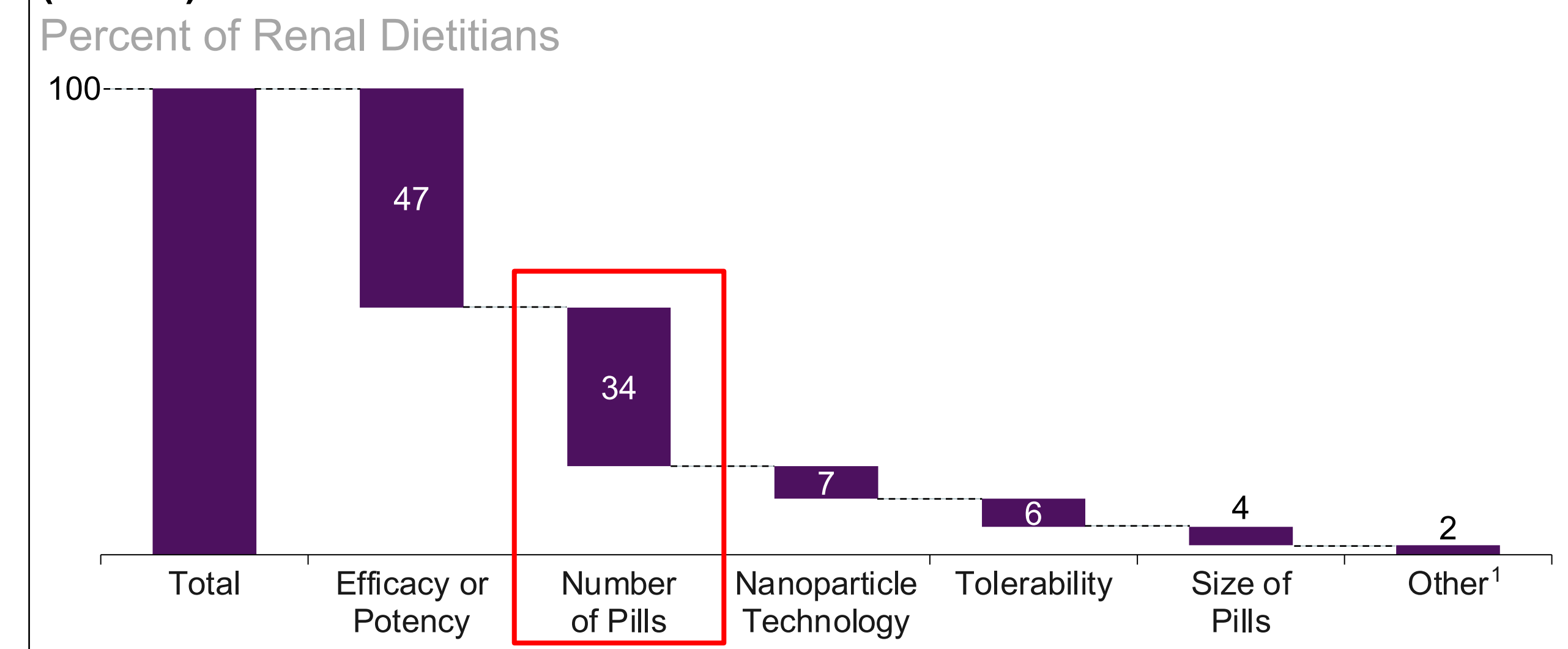
<sup>1</sup> Patients are so advanced that phosphorus is impossible to control  
<sup>2</sup> Out of pocket expense

**Figure 3. Mean Survey Scores<sup>1</sup> for Likelihood of Dietitian-Perceived Reasons That Patients Discontinue Binders, by Brand**



<sup>1</sup> Never a reason (1) – Always a reason (5)

**Figure 4. Most Appealing Aspect of OLC According to Renal Dietitians (N=100)**



<sup>1</sup> Non-chewable, metal that can be absorbed

## CONCLUSIONS/DISCUSSIONS

- Strategies that reduce pill burden and increase ease of use for patients may promote P binder treatment compliance, which may improve patient outcomes
- OLC, which is a smaller tablet that can be swallowed whole without chewing, may address P binder compliance issues seen with current P binders

**References:**

- USRDS Annual Data Report. 2020.
- Van Camp YP. et al., J Nephrol. 2014. Dec.
- Chiu YW. et al., Clin J Am Soc Nephrol. 2009. Jun.
- Patel P. et al., Eur J Hosp Pharm. 2015. Jun.

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**Disclosures:**

KM Hill Gallant has no financial disclosures and has received consulting fees in the past for work unrelated to this investigation. D Jermasek and S Gupta are employees of Unicycive Therapeutics, Inc.