Implementation of ESRD Bundling

June 11, 2009

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Agenda

- Background and History
- Policy Issues: Bundling Part D Oral Drugs
- Clinical Overview: Phosphate Binders
- Other Issue: Vitamin D and Calcimimetics
- Summary

MIPPA ESRD Bundling Provision

(B) For purposes of this paragraph, the term `renal dialysis services' includes–

(i) items and services included in the composite rate for renal dialysis services as of December 31, 2010;

``(ii) erythropoiesis stimulating agents and any oral form of such agents that are furnished to individuals for the treatment of end stage renal disease;

``(iii) other drugs and biologicals that are furnished to individuals for the treatment of end stage renal disease and for which payment was (before the application of this paragraph) made separately under this title, and any oral equivalent form of such drug or biological; and

``(iv) diagnostic laboratory tests and other items and services not described in clause (i) that are furnished to individuals for the treatment of end stage renal disease. Such term does not include vaccines.

Legislative History of ESRD Bundled Payments:

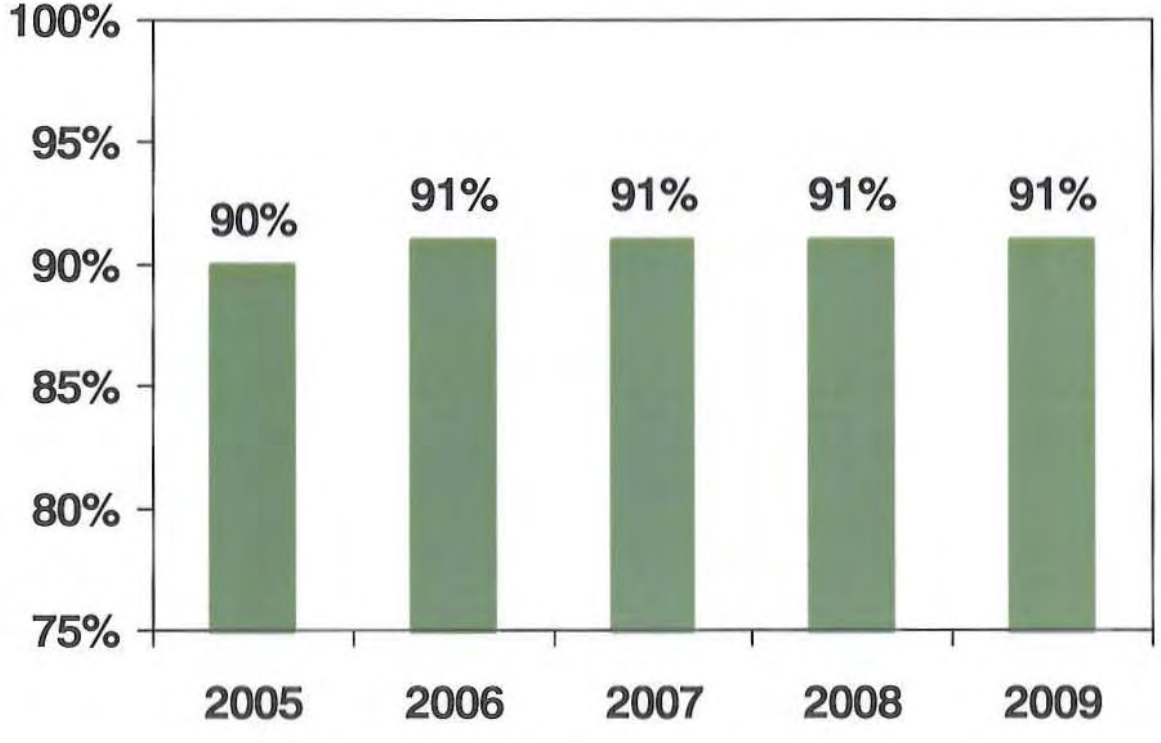
- **Senate originated language**
  - Leadership (Baucus/McConnell) negotiated scope of bundle carefully
  - Ambiguity not intended
  - Renal community (KCP) opposed inclusion of any oral drugs
  - Chairman Baucus has informed CMS of Senate intent that only oral IV equivalents be included in the bundle

- **House passed Senate language**

Background: Phosphate Binders

- Elevated serum phosphorus contributes to bone mineral disease
  - Increases cardiovascular calcification
  - Higher mortality among dialysis patients
- Dialysis alone does not adequately clear phosphorus
- Indicated for the control of serum phosphorus in patients with chronic kidney disease on dialysis
- Binds dietary phosphorus until eliminated through digestive track
- Taken daily with meals and snacks
  - Not during dialysis treatment

Background: Market Penetration Over Time of Phosphate Binders



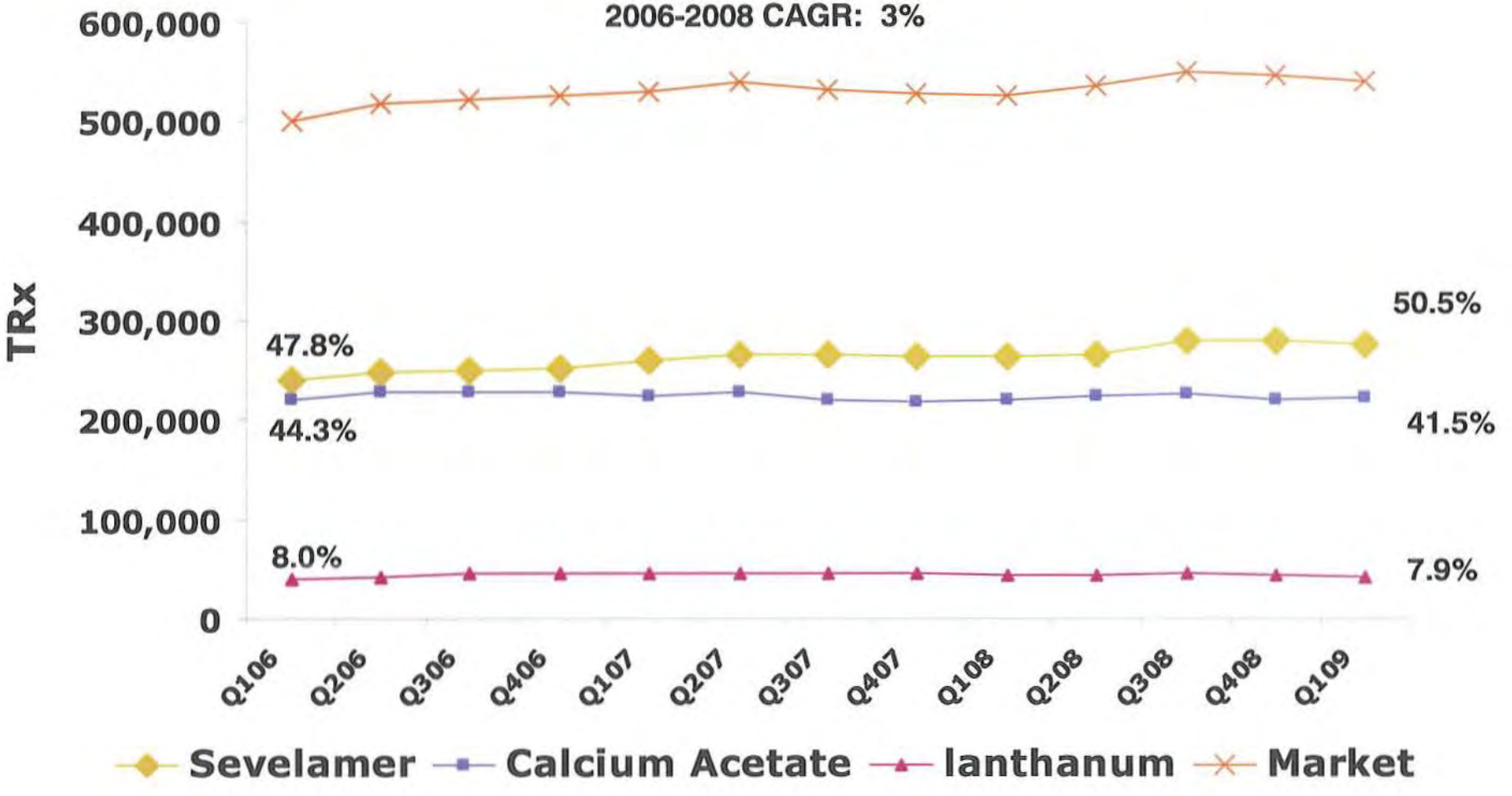
Biotrends Data

Background: Oral Phosphate Binders

- **Calcium binders**
  - **Phoslo® (calcium acetate) – Fresenius Medical Care**
    - Accumulates in body
    - Generic calcium acetate – Roxane (Q4 2008)

- **Non-calcium binders**
  - **Renvela® (sevelamer carbonate) – Genzyme**
    - Renagel® (sevelamer hydrochloride) was first generation
    - Genzyme plans to replace Renagel with Renvela
    - Non-accumulating (polymer based)
  - **Fosrenol® (lanthanum carbonate) – Shire**
    - Accumulates in body

Phosphate Binder
Quarterly Prescription Trends



Source: IMS NPA

Phosphate Binder Market and Pricing

		Calcium	PhosLo	Renvela	Renagel	Fosrenol
WAC	Bottle	$126.34	$140.36	460.37	$383.63	$481.88
	30 day[2]	108.97	$118.74	$378.53	$443.73	$568.62
Annual Patient Cost	100% Compliance	$1,303	$1,447	$4,649	$5,307	$5,777
	Compliance Adjusted[3]	$717	$796	$2,556	$2,918	$3,177
Rx Share*	TRx	34.0%	7.6%	12.2%	38.4%	7.7%

41.6%
Combined calcium

50.6%
Combined sevelamer

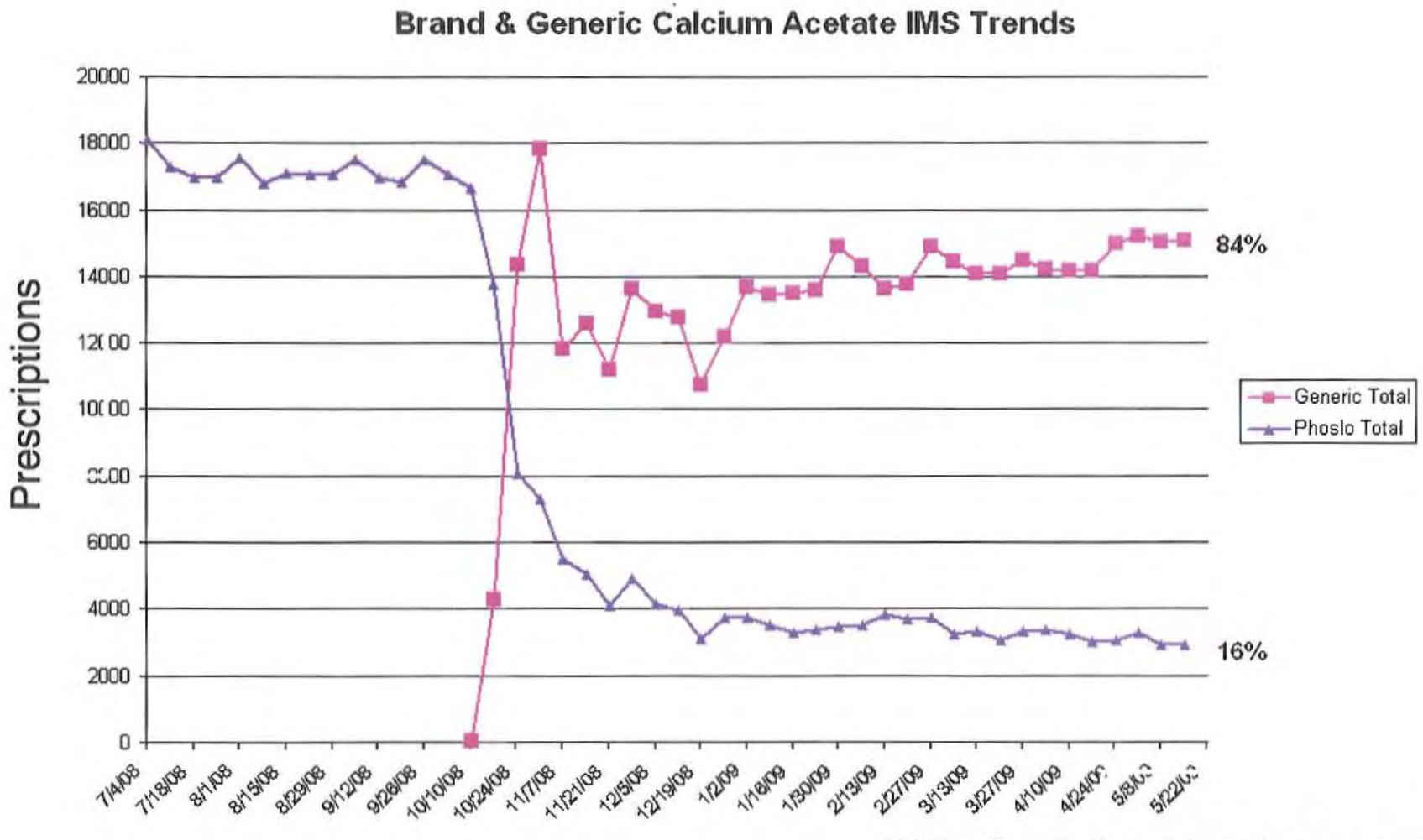
* Fosrenol pricing based on 1gm SKU

* IMS April '09 Rx Data

[2] DACON Adjusted 30 day supply

[3] 55% compliance for phosphate binders

Generic Penetration of Calcium Acetate Market Share



180 Day Generic Exclusivity Period Ended 04/2009

Policy Issues

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Policy Issues with Bundling Part D Orals: Medicare Costs Would Increase

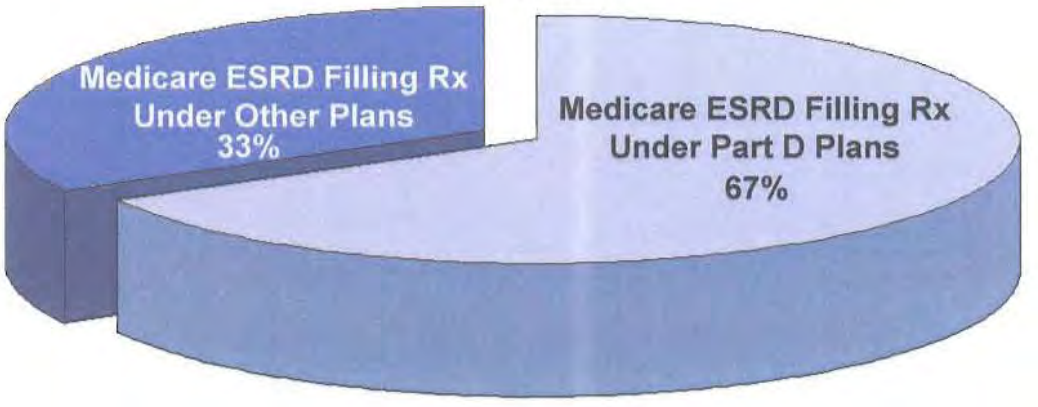
- **Adding outpatient oral drugs (phosphate binders and calcimimetics) would increase Medicare costs**
  - Commercial insurers **pay** for outpatient drugs used by **1/3** of Medicare ESRD patients where Medicare is Primary

- ***Bundling shifts all prescriptions to Medicare***
  - Moving oral drugs from Part D to expanded ESRD bundle would increase overall Medicare costs
    - Mainly because Medicare pays for more prescriptions

Policy Issues with Bundling Part D Orals
Medicare Costs Would Increase:

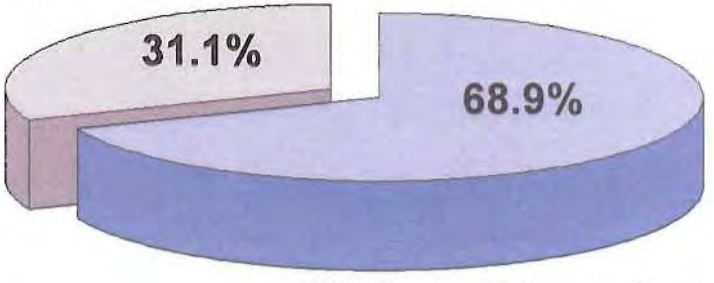
ESRD Patients Prescriptions:

(Medicare is Primary Payer)



Medicare Secondary Payer

(30 Month Coordination Period)



Medicare Primary Payer

Estimates Based Upon:

- Genzyme internal reimbursement information
- Qualitative survey of large dialysis chains prescriptions

Policy Issues with Bundling Part D Orals Beneficiaries Would Lose Part D Protections

- **Beneficiaries would lose access protections that are part of Part D program**
  - Dialysis centers could limit physician choice among products; while Part D plans are required to offer at least two drugs in each therapeutic class
  - Part D plans are required to have beneficiary appeals processes to ensure access to medically necessary drugs
- **Beneficiaries would lose processes to ensure their safety**
  - Drug-drug interaction and drug utilization review conducted by Part D providers would not be complete and could endanger beneficiaries
  - No assurance of appropriate oversight by dialysis units
- **Beneficiaries would have confusion of dual delivery systems**
  - Patients would get some orals from their dialysis center and others from their Part D pharmacy network, resulting in confusion and inconvenience

Policy Issues with Bundling Part D Orals
Dialysis Centers Cannot Legally Dispense Outpatient Drugs

- **Dialysis providers are only licensed to administer drugs during the provision of dialysis services**
- **Facilities are not licensed to dispense outpatient drugs**
  - States regulate licensure of retail pharmacies and requirements vary
  - Dispensing pharmacy requirements generally include pharmacists on staff and would increase facility overhead costs
  - Dialysis centers could contract with retail pharmacies or pharmacy benefit managers (PBMs), both of which add cost to facilities
  - Forcing rural and independent facilities to find mechanism to dispense outpatient drugs, a function they don't currently perform, would make them even less competitive with large dialysis organizations (LDOs)

Policy Issues with Bundling Part D Orals
Dialysis Centers Can't Legally Dispense Outpatient Drugs

- **No clinical rationale exists for bundling Part D drugs**
  - ESRD patients on average take 7-14 outpatient prescription drugs per day
  - As high-utilizers of outpatient drugs, typically ESRD patients take:
    - antihypertensives, anticoagulants, antiglycemic (diabetes), antiarythmics, cardiovascular medications, phosphate binders, pain medications, calcimimetics, antidepressants, antiulcer, statins, and other gastrointestinal drugs
  - There are no incentives for overutilization of these medications because neither dialysis centers nor physicians incur the cost or get reimbursed for these drugs

ESRD Outpatient Medications Project. Network 8, Inc. and The University of Mississippi, Department of Pharmacy Administration, June 30, 2005.

Policy Issues with Bundling Part D Orals
Renal Community Opposes Adding Oral Rx's

- **Kidney Care Partners (KCP)**
  - *"When implementing MIPPA, oral drugs should not be expanded beyond the IV equivalents."*

- **National Renal Administrators Association (NRAA)**
  - Inclusion of oral drugs *"could force additional facilities out of business and negatively impact access to dialysis care."*

- **Kidney Care Council (KCC)**
  - *"Facilities are not at present prepared to deliver oral medicines since they are neither the patient's prescribing physician nor its pharmacy."*

Clinical Overview: Phosphate Binders

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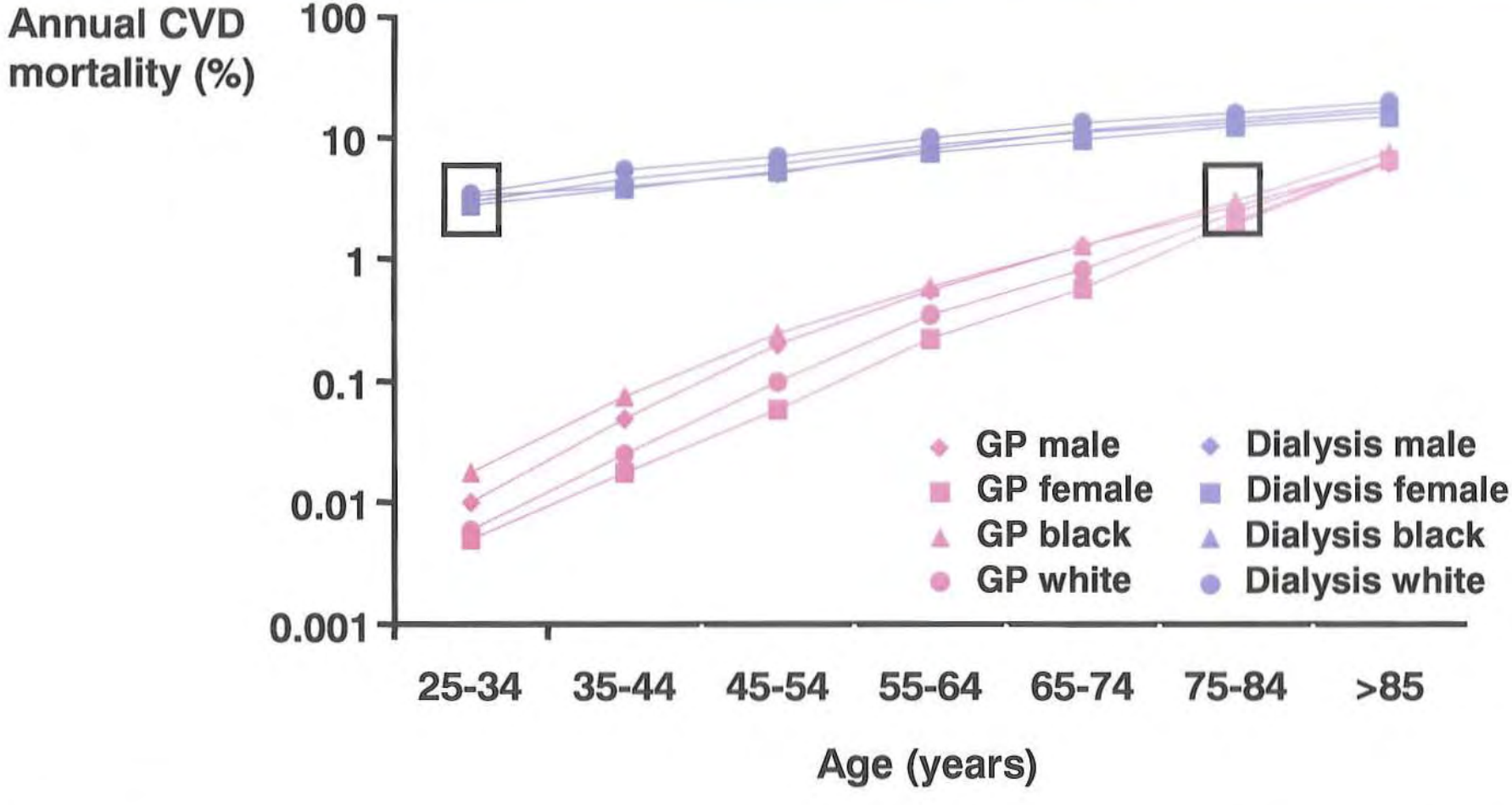
Clinical Summary

- Cardiovascular disease is the leading cause of death among ESRD patients
- High serum phosphorus needs to be controlled and is a significant independent risk factor for mortality
- Deciding how to control phosphorus levels is critically important
  - Calcium-based binders can lead to significantly greater vascular calcification of patients
- Phosphate binder treatment needs to be individualized, and physicians need to be able to select therapies freely

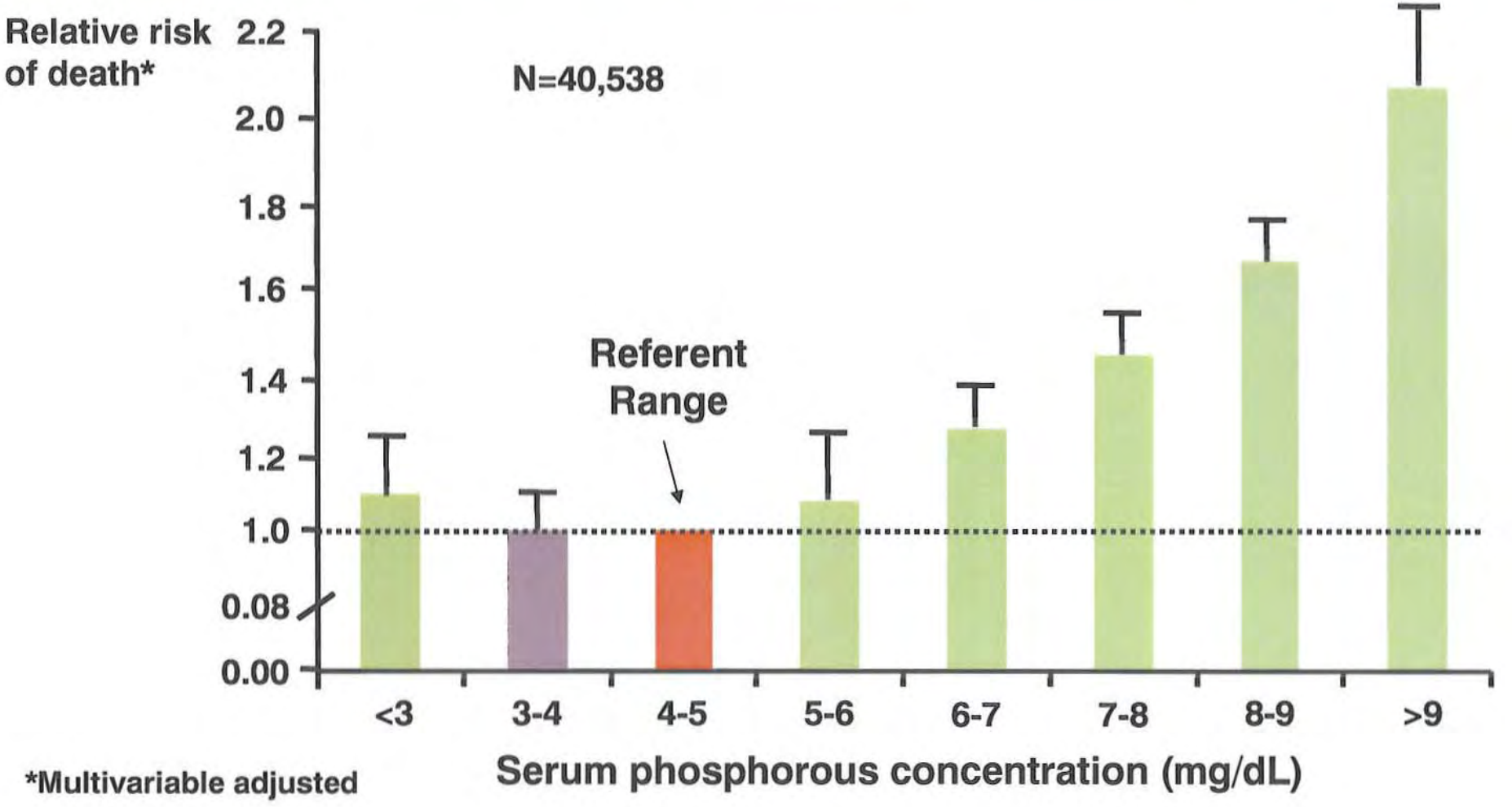
Cardiovascular Disease (CVD) Mortality General Population versus ESRD Patients



GP=General Population
ESRD=End-Stage Renal Disease

Foley RN, Parfrey PS, Sarnak MJ. *Am J Kidney Dis*. 1998;32(suppl):S112-S119.

Elevated Serum Phosphorus Increases Mortality Risk in ESRD Patients



*Multivariable adjusted

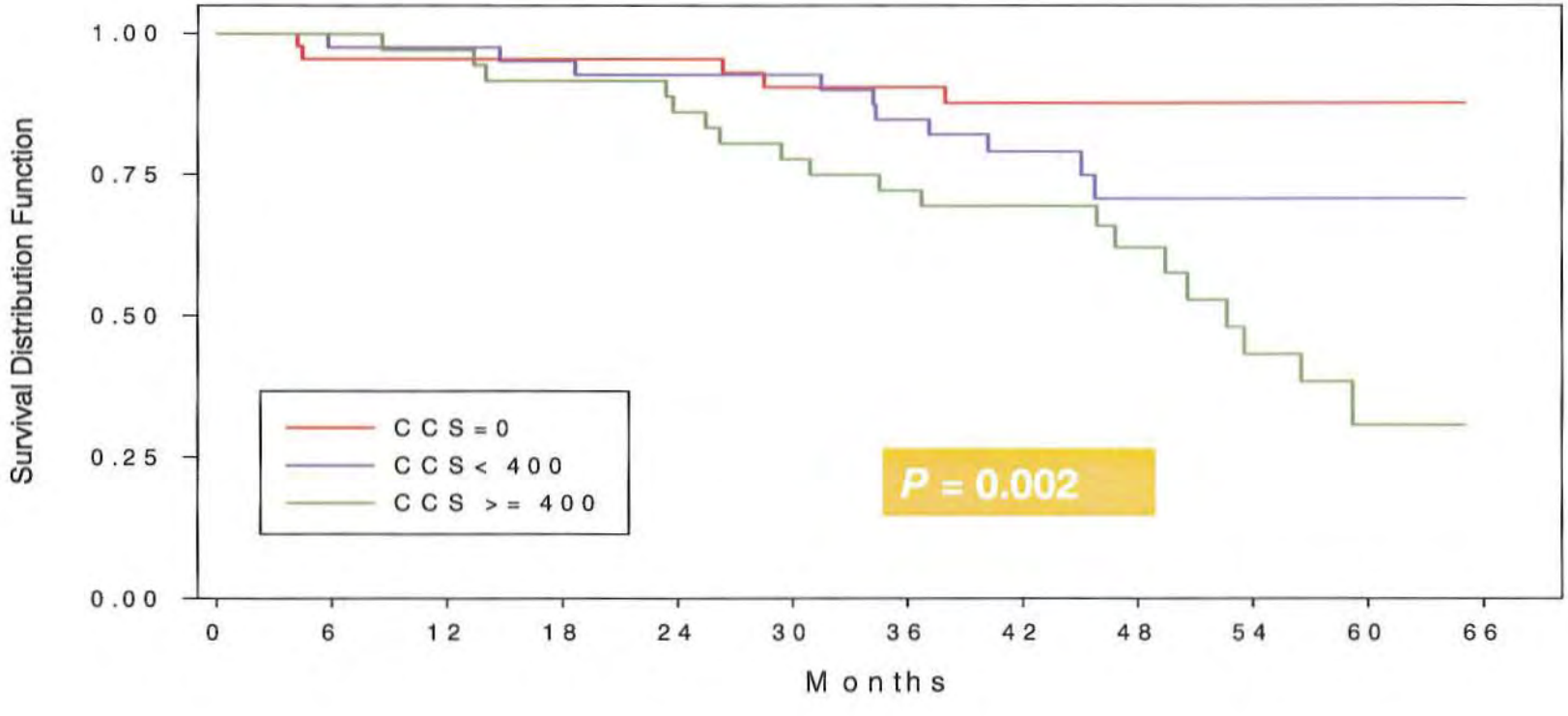
Block GA, Klassen PS, Lazarus JM, Ofsthun N, Lowrie EG, Chertow GM. *J Am Soc Nephrol*. 2004;15:2208-2218.

KDOQI Clinical Practice Guidelines Recommendations: Bone Metabolism Target Levels For CKD Stage 5 Patients

Biochemical Parameter	Target Level
Serum P (mg/dL)	3.5–5.5
Serum Ca (mg/dL)	8.4–9.5
Plasma iPTH (pg/mL)	150–300
Serum Ca × PO_4 (mg^2/dL^2)	<55

National Kidney Foundation. K/DOQI (Kidney Disease Outcomes Quality Initiative) clinical practice guidelines for bone metabolism and disease in chronic kidney disease.

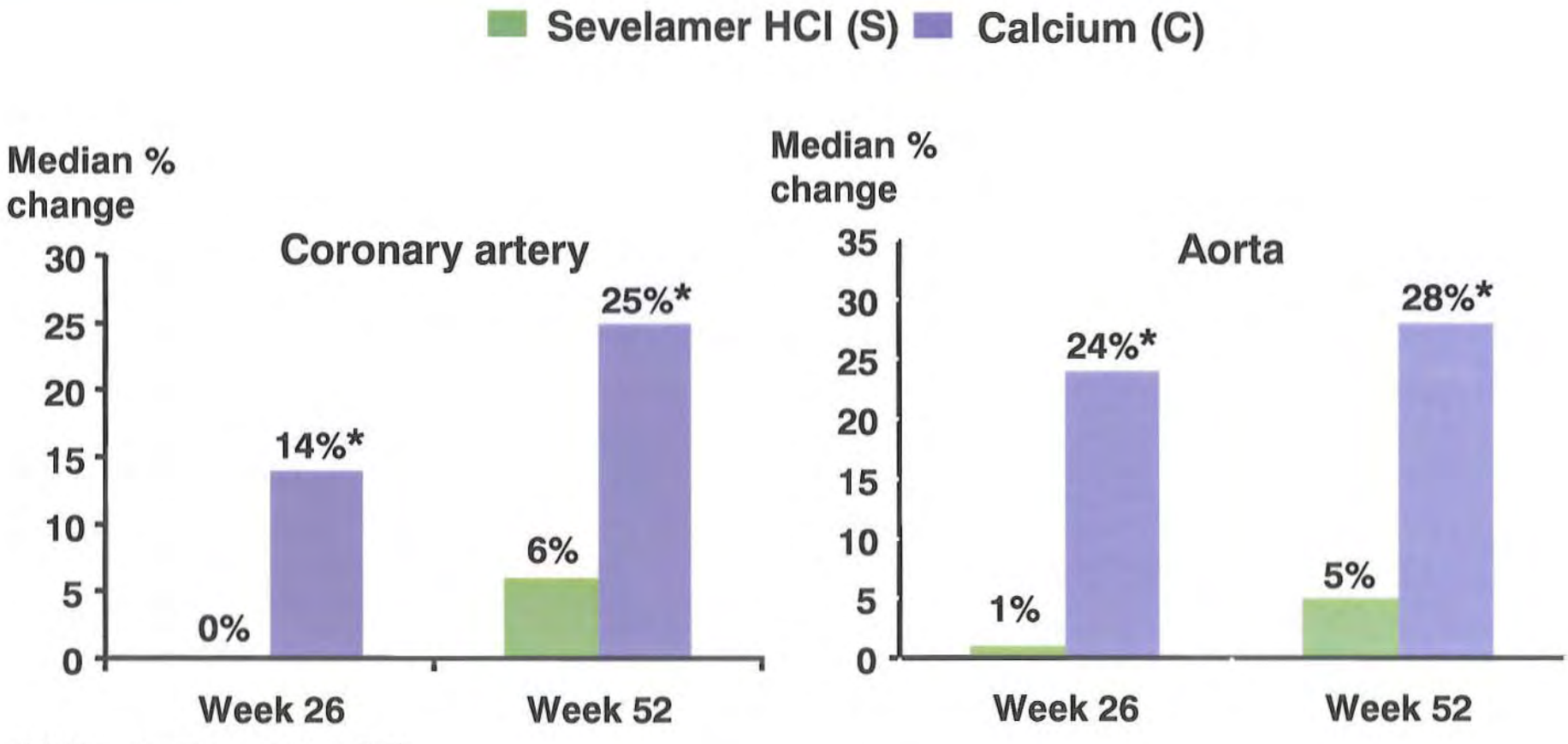
Baseline Coronary Calcification Score (CCS): Strong Predictor of Mortality



Baseline Calcification: 40% of Patients present with no calcification

Block GA, Raggi P, Bellasi A, Kooienga L, Spiegel DM. Mortality effect of coronary calcification and phosphate binder choice in incident hemodialysis patients. *Kidney Int.* 2007;71(5):438-441.

Treat-to-Goal Study
Coronary Artery and Aortic Calcification

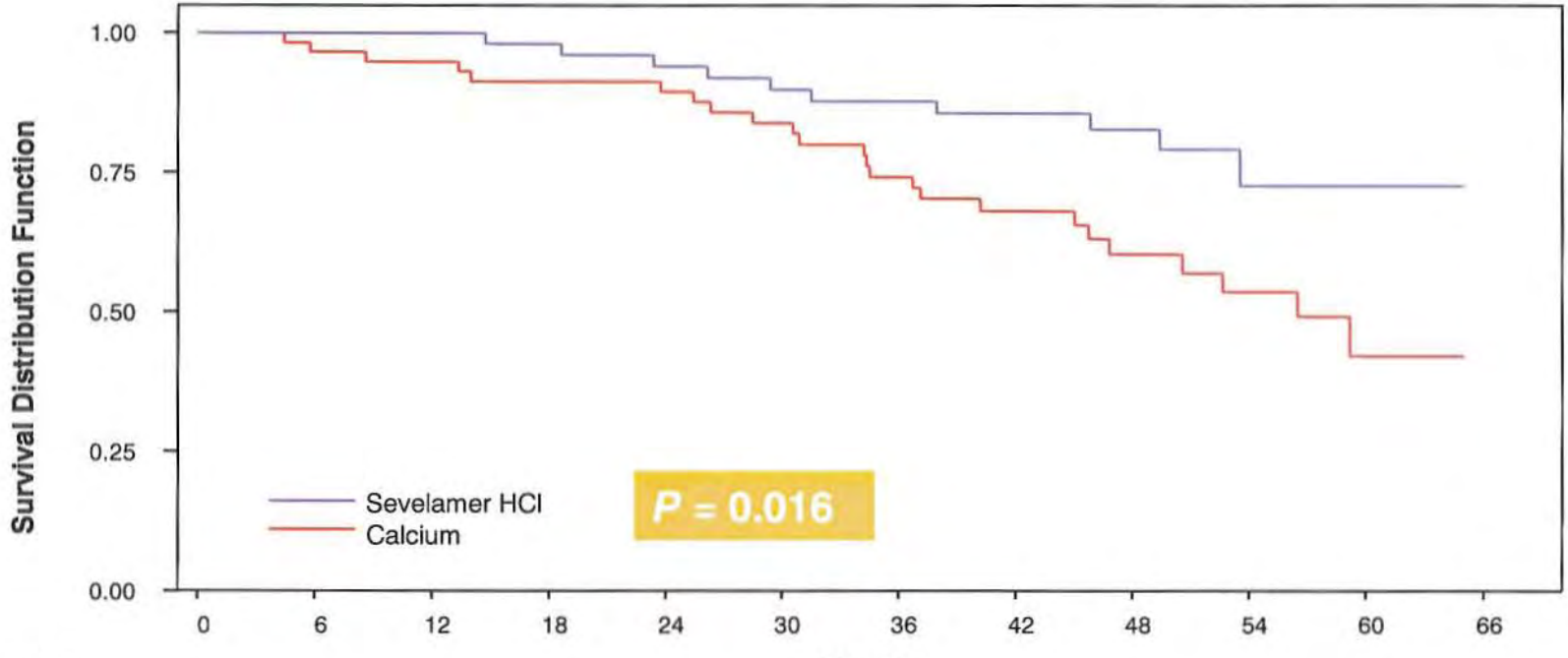


*Within treatment $P<0.001$

Chertow GM, Burke SK, Raggi P. Treat to Goal Working Group. *Kidney Int*. 2002;62:245-252.

Renagel in New Dialysis (RIND) Study Outcomes

Increased Mortality in Patients Randomized to Calcium vs Sevelamer HCl



No. at Risk							
Calcium	67	63	60	55	45	22	5
Sevelamer HCl	60	57	57	51	47	25	4

Block GA, Raggi P, Bellasi A, Kooienga L, Spiegel DM. Mortality effect of coronary calcification and phosphate binder choice in incident hemodialysis patients. *Kidney Int.* 2007;71(5):438-441.

KDOQI Clinical Practice Guidelines: Calcium-based Phosphate Binders Limitations

- Should **not** be used in dialysis patients who are:
  - **Hypercalcemic** (corrected serum calcium of >10.2 mg/dL)
  - Plasma **PTH levels are <150 pg/mL** on two consecutive measurements
  - **Patients with severe vascular and or other soft-tissue calcifications**
- If vascular calcification is present in two or more sites (identified by plain radiography), then consideration should be given to prescription of a **non-calcium-based phosphate binder**
- The total dose of elemental calcium provided by the calcium-based phosphate binders should not exceed **1500 mg/day**, and the total intake of elemental calcium (including dietary calcium) should not exceed 2000 mg/day.

KDOQI Workgroup. KDOQI clinical practice guidelines for CKD-MBD and cardiovascular disease in dialysis patients.

Clinical Policy Issues from Including Phosphate Binders in the ESRD Bundle

- **In a bundled system, clinics could restrict physician choice**
- **Physicians may feel pressure to move patients to cheaper calcium binders, which will result in negative clinical outcomes for many patients due to:**
  - Increased vascular calcification and cardiovascular events
  - Increase cardiovascular mortality
- **KDOQI Treatment Guidelines identify specific dialysis patient subpopulations for which calcium intake is restricted:**
  - Patients with hypercalcemia (high calcium levels)
  - Patients with low PTH
  - Patients with evidence of cardiovascular calcification
- **Phosphate binders have contraindications for concomitant use with other prescription drugs**

Clinical Policy Issues from Including Phosphate Binders in the ESRD Bundle

- **Currently there are no financial incentives to distort utilization of phosphate binders**
  - Currently 90% of eligible ESRD patients are treated with phosphate binders
  - Market shares of products have remained stable over time, reflecting physician clinical decisions and patient characteristics rather than financial considerations
- **Bundling will inject financial incentives that will conflict with good medical practice**
- **Paying an average price for products that are highly clinically differentiated and have significantly different costs misaligns incentives**

Policy Complications Associated With Bundling Calcimimetics

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Complications with Bundling Calcimimetics

- There is significant clinical differentiation between Vitamin D agents and calcimimetics
- Bundling calcimimetics creates strong financial incentives for facilities to use less product or move to cheaper therapies, rather than most clinically appropriate choice
- Under bundling, Medicare would newly pay for calcimimetics for patients who have other insurance sources
- Drug/drug interactions with the use of calcimimetics could create patient safety issues, if not part of overall review with all meds and under supervision of pharmacist

Oral Vitamin D Products

- **Zemplar® (paricalcitol) – Abbott**
  - Indicated for CKD Stage 3 and 4 (not for CKD Stage 5 on dialysis)
  - Administered three times a week or daily
- **Hectorol® (doxercalciferol) – Genzyme**
  - Administered three times a week or daily
- **Generic calcitriol – Teva and others**

Calcimimetics

- **Sensipar® (cinacalcet) – Amgen**
  - Calcimimetics are not clinically interchangeable with Vitamin D agents
    - Not first-line therapy
    - Used as adjunct therapy
    - Typically, reserved for severe patients with PTH >600 pg/mL
    - Less than a third of patients on calcimimetics
  - Calcimimetics have a different mechanism of action
    - Increase the sensitivity of the calcium-sensing receptor to activation by extracellular calcium
  - Calcimimetics have a different dosing regimen
    - Must be administered daily
    - In contrast, Vitamin D agents can be taken 3 times a week during dialysis treatment

Summary: Cost, Policy & Clinical Issues

- **Phosphate binder bundling would increase Medicare costs**
  - Bundle would shift prescriptions currently paid by private insurance to Medicare for many beneficiaries
- **Phosphate binder bundling would impact patients negatively**
  - Would create duplication and confusion with existing pharmacy networks
  - Prescribing decisions could be influenced by facility's financial incentives
- **Bundling phosphate binder incents inappropriate patient care with the risk of negative clinical outcomes**
- **Congress considered these same issues and decided not to include oral drugs, other than IV equivalents**
- **Would impact providers negatively**
  - Clinical and licensure issues prevent oral drug dispensing by dialysis centers
  - Would have a negative impact on rural, independent facilities and their ability to compete