



University of Wisconsin
SCHOOL OF MEDICINE
AND PUBLIC HEALTH

Opportunities in CKD Research

David Feldstein, MD

Associate Professor of Medicine

University of Wisconsin SMPH

df2@medicine.wisc.edu

No financial Disclosures



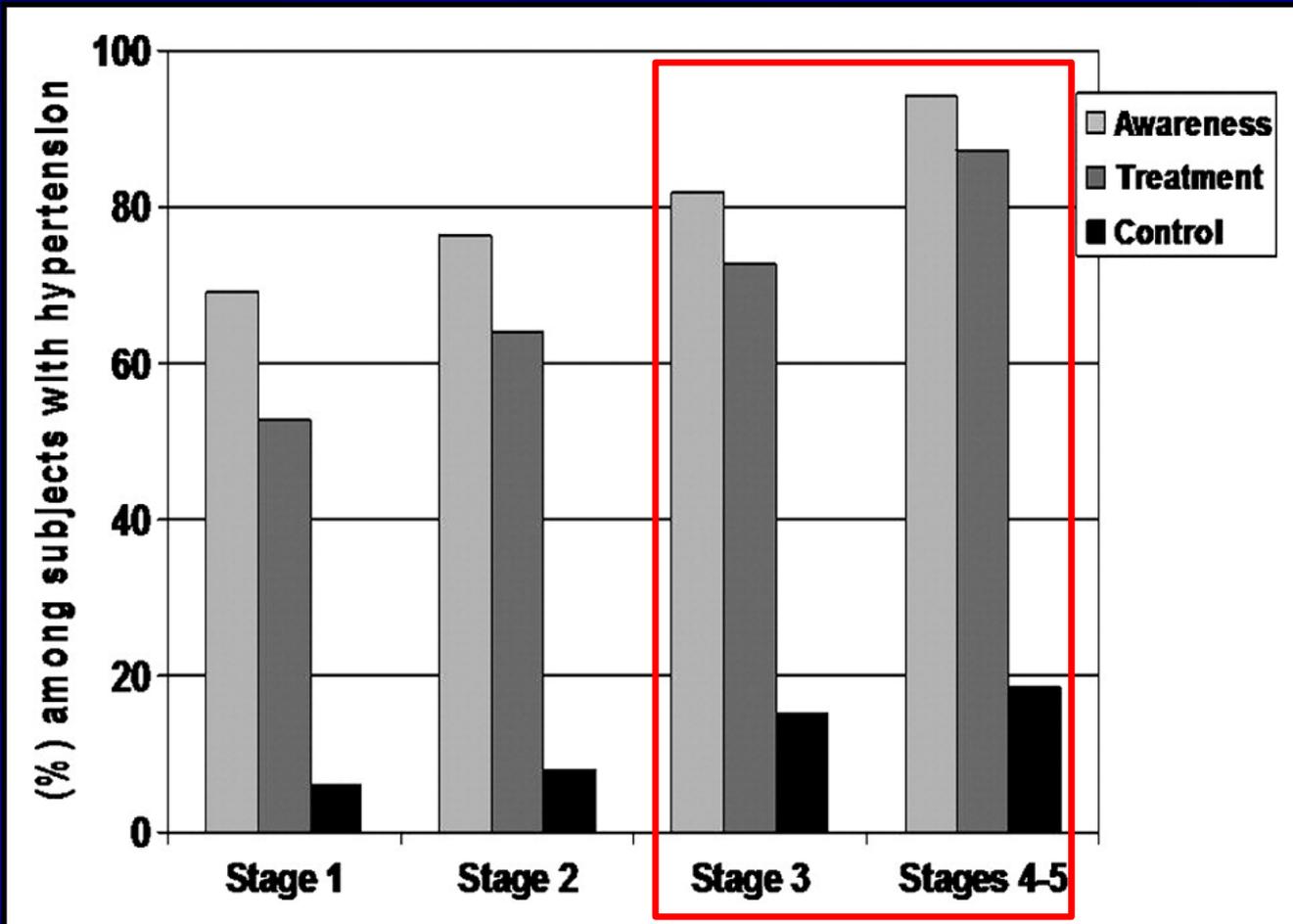
Outline

- Gaps in CKD care
- Opportunities
 - Intensity of Care
 - Clinical Decision Support
 - Shared Decision Making



What Do We Know?

■ Many with CKD not even aware



- KEEP Study
- 10,813 people at high risk of CKD
 - 49 states



What Do We Know?

- If identified not receiving recommended tx

	Stage of CKD				Total (n=34,644)
	Stage 3a (n=25,016)	Stage 3b (n=7489)	Stage 4 (n=1702)	Stage 5 (n=437)	
BP <130/80	39.4%	40.5%	39.3%	38.7%	39.7%
Prescription for ACE/ARB in last year	49.6%	60.7%	56.8%	41.7%	52.2%
LDL < 100	43.8%	50.6%	50.1%	56.1%	45.7%
NSAID in chart past year	14.3%	12.3%	7.5%	7.8%	13.4%

PBRN with 120 practices in 38 states



What's Important to Primary Care?

- 3 studies
 - Upstate NY/ UK/ Wisconsin
 - Focus groups or interviews



Barriers

■ Guidelines

- Lack of awareness of CKD guidelines
- Guidelines not flexible for different patients
- Lack of trust of guidelines

■ Systems

- Systems designed for acute not chronic care
- Lack of decision support tools
- Distribution of work within the practice team
- Multiple physicians (specialists)
- Access to Nephrology



Barriers

■ Provider

- Desire for more CKD practice guidance
- Variability in the treatment of complications
- Uncertainty of timing for nephrologist referral
- Identifying and discussing CKD in older people and patients with stage 3A

■ Patient/ Society

- Lack of recognition of importance of CKD
- Nonadherence to treatment plans



Opportunities/ Controversies

■ Labeling older patients with Stage 3 CKD

Opinion

VIEWPOINT

An Age-Calibrated Classification of Chronic Kidney Disease

Richard Glassock,
Geffen School of
Medicine, University
of California-Los Angeles,
Laguna Niguel,
California.

VIEWPOINT

Chronic Kidney Disease in Older People

Opinion

Andrew S. Levey, MD
Division of Nephrology,
Tufts Medical Center,
Boston, Massachusetts.

Should current guidelines be changed to require age calibration for diagnosis and classification of chronic kidney disease? —No.

Chronic kidney disease (CKD) is a global public

of GFR and albuminuria in older people, with some people exhibiting virtually normal levels and others having severe abnormalities. Second, lower GFR and higher albuminuria are associated with other abnor-



Diagnosing Older Patients with CKD

■ Majority of older patients Stage 3

Table 1. Sample Characteristics Stratified by eGFR-based Stage of Chronic Kidney Disease

N=3,406	No chronic kidney disease (n=1,569, 47.5%)	Chronic kidney disease by stage		
		Stages 1 and 2 (n=623, 16.4%)	Stage 3 (n=1,125, 34.1%)	Stages 4 and 5 (n=89, 2.0%)
Demographics				
Age				
65–74 years (%)	56.5	16.2	25.7	1.6
75–84 years (%)	39.3	16.7	42.1	1.8
≥85 years (%)	18.1*	16.8	59.2	6.0

- Increased mortality with decreasing eGFR
- Relative increase in mortality lower with increasing age
- No evidence that treatment will decrease risk in older patients



Potential Questions

- Should the diagnosis of CKD change in older patients?
- What are the harms in diagnosing older patients with CKD?
- Should guideline recommendations for care change based on age?



Opportunities/ Controversies

- Role of clinical decision support/ EHR in improving CKD care



Clinical Decision Support

- Registries alone
 - Mixed results
- Integrated Solutions
 - Case managers
 - Computer decision support
 - Academic detailing/ audit and feedback
 - Improvement in process measures
- No evidence for improvement in patient outcomes



Potential Questions

- What is the best design of CDS to support CKD care?
- How do you best incorporate CDS into clinic workflow to maximize benefit?
- Who should use the CDS?
- Can e-consults improve care while minimizing nephrology visits?



Opportunities/ Controversies

- Shared decision making in CKD diagnosis and treatment



Shared Decision Making (SDM)

■ Information Exchange

– Physician informs patient about

- Treatment options

- Benefits and risk of each option

– Patient provides physician with

- Values, preferences, lifestyle, beliefs

- Knowledge about illness and its treatment

■ Deliberation

■ Deciding on Treatment



SDM – Presenting Risk to Patients

- Avoid the use of qualitative descriptors
 - High risk, low risk
- Use event rates or natural frequencies to describe risks
- Express benefits in absolute terms
 - Absolute risk reduction
- Add graphical representations
 - Bar Charts or Icon Arrays



SDM – Determining Quality of Decision

- Decisional conflict scale used in research
 - Decisional conflict increases when person:
 - 1) feels uninformed about the alternatives, benefits and risks
 - 2) is unclear about personal values
 - 3) feels unsupported in making a choice or pressured to choose on course of action.
- Higher conflict scores correlates with delaying vaccinations or mammograms

B. Considering the option you prefer, please answer the following questions:

	Strongly Agree	Agree	Neither Agree Or Disagree	Disagree	Strongly Disagree
	[0]	[1]	[2]	[3]	[4]
1. I know which options are available to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. I know the benefits of each option.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I know the risks and side effects of each option.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I am clear about which benefits matter most to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I am clear about which risks and side effects matter most.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I am clear about which is more important to me (the benefits or the risks and side effects).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. I have enough support from others to make a choice.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. I am choosing without pressure from others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. I have enough advice to make a choice.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. I am clear about the best choice for me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. I feel sure about what to choose.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. This decision is easy for me to make.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. I feel I have made an informed choice.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. My decision shows what is important to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. I expect to stick with my decision.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. I am satisfied with my decision.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Shared Decision Making

- What is the best measure to determine if a patient made the “correct” decision?
- At what point in the process should clinical decision aids be used?
- How will true shared decision making impact quality of care metric performance?



Summary

- Diagnosis of CKD in older patients
- Clinical Decision Support and the EHR to improve CKD care
- Shared Decision Making



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Table 3. Examples of Common Numerical Methods of Risk Communication to Show Risk for Stroke With Drug A Versus Placebo

Method	Placebo	Drug A
Event rate	24%	16%
Natural frequency	24 out of 100	16 out of 100
ARR (can be stated as natural frequency or event rate)	–	8% or 8 out of 100
RRR	–	33%
NNT	–	13

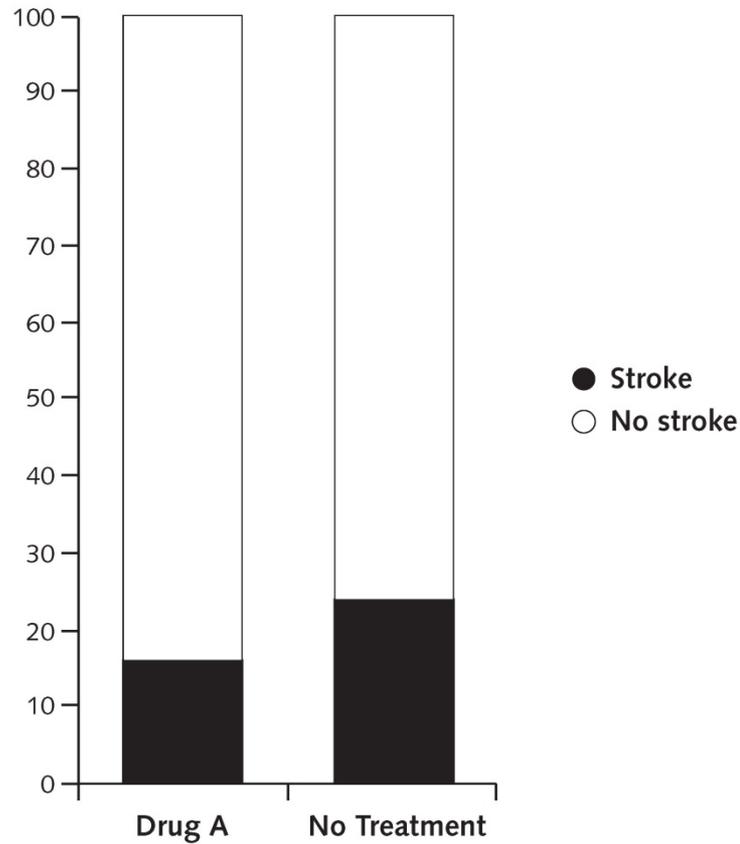
ARR = absolute risk reduction; NNT = number needed to treat; RRR = relative risk reduction.

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Bar Charts

Bar Graph Showing Total Population: Drug A Reduces Risk for Stroke in Total Population

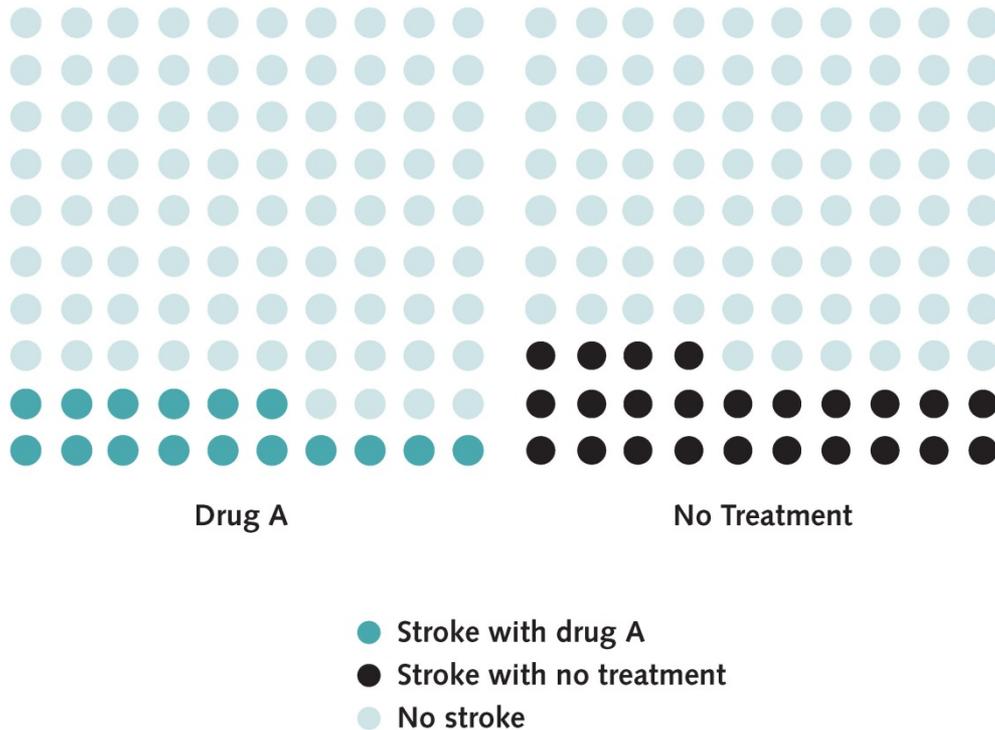


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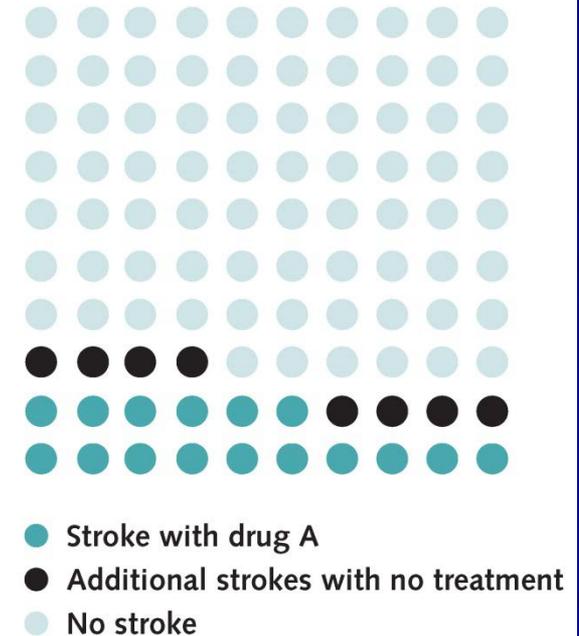


Icon Arrays

Two-Icon Arrays: Risk for Stroke With Drug A Versus Placebo



Incremental Risk Icon Array: Risk for Stroke



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