



KDIGO - Controversies Conference
**Chronic Kidney Disease as a Global Public Health
Problem: Approaches and Initiatives**

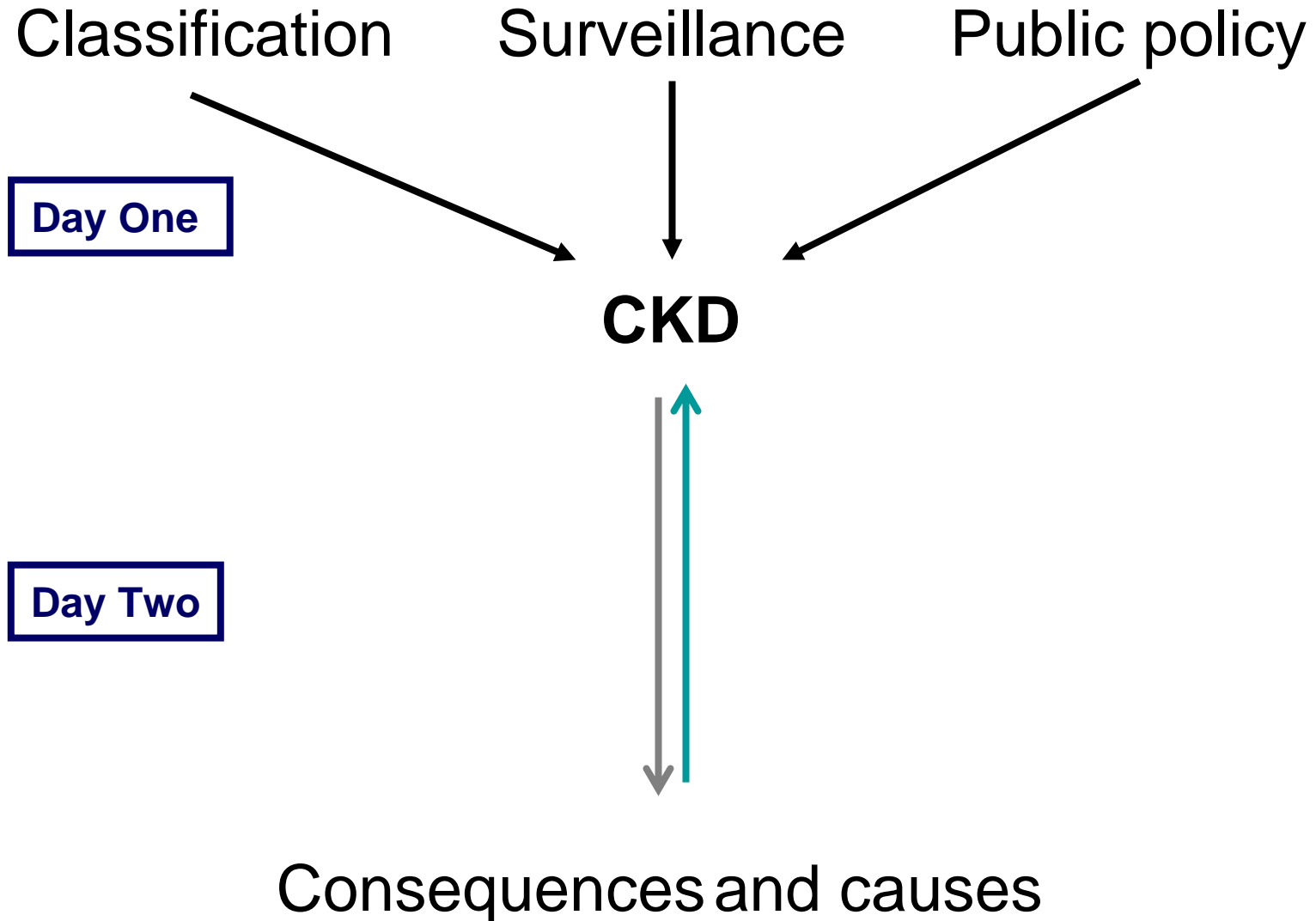
12-14 October, 2006

Renaissance Amsterdam, Amsterdam

Day Two - Overview

Kai-Uwe Eckardt

CKD as a Global Public Health Problem





CKD as a Global Public Health Problem

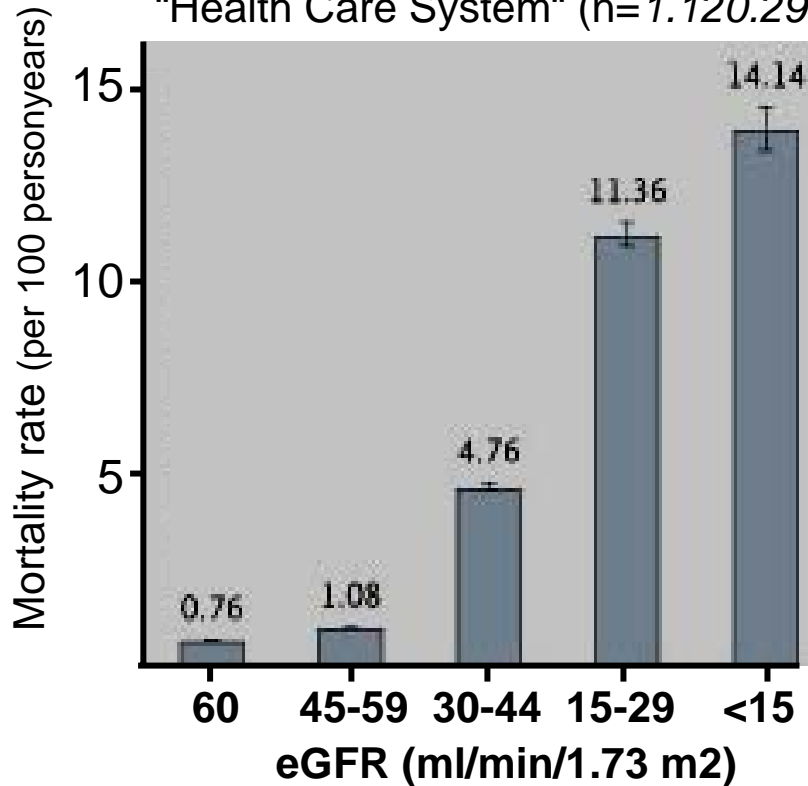
BACKGROUND: CKD – more than the risk for dialysis.....

- Prevalence of CKD stage 1-4 more than 50 fold higher than CKD stage 5
- Majority of CKD patients die before reaching “stage 5 D”
- Much of the health risk and socioeconomic burden of CKD probably related to complex interactions with other chronic diseases

CKD as a Global Public Health Problem

**CKD –
a cardiovascular risk factor**

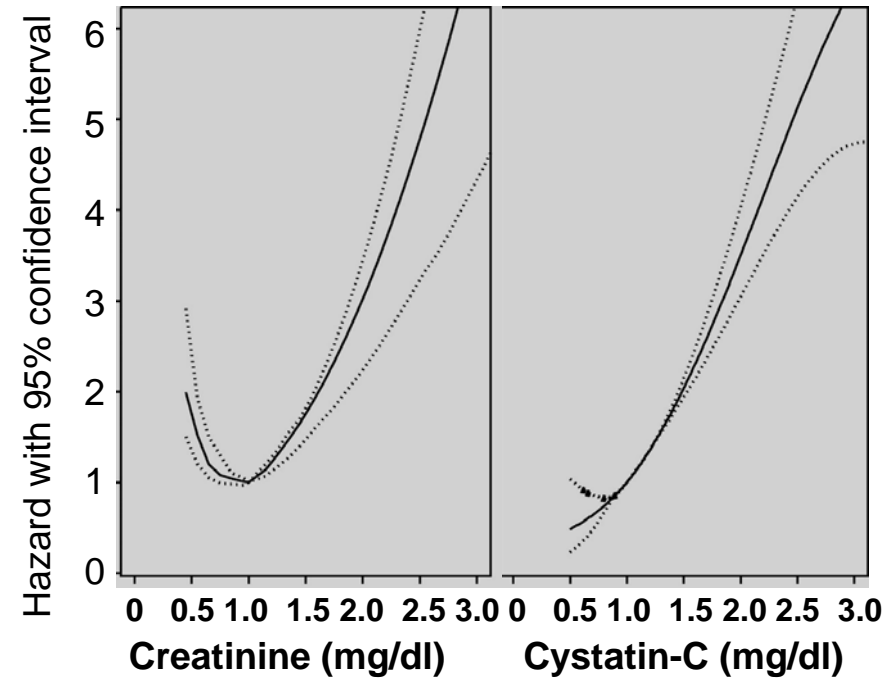
Kaiser Permanente Registry:
“Health Care System” (n=1.120.295)



Go et al., *NEJM* 2004

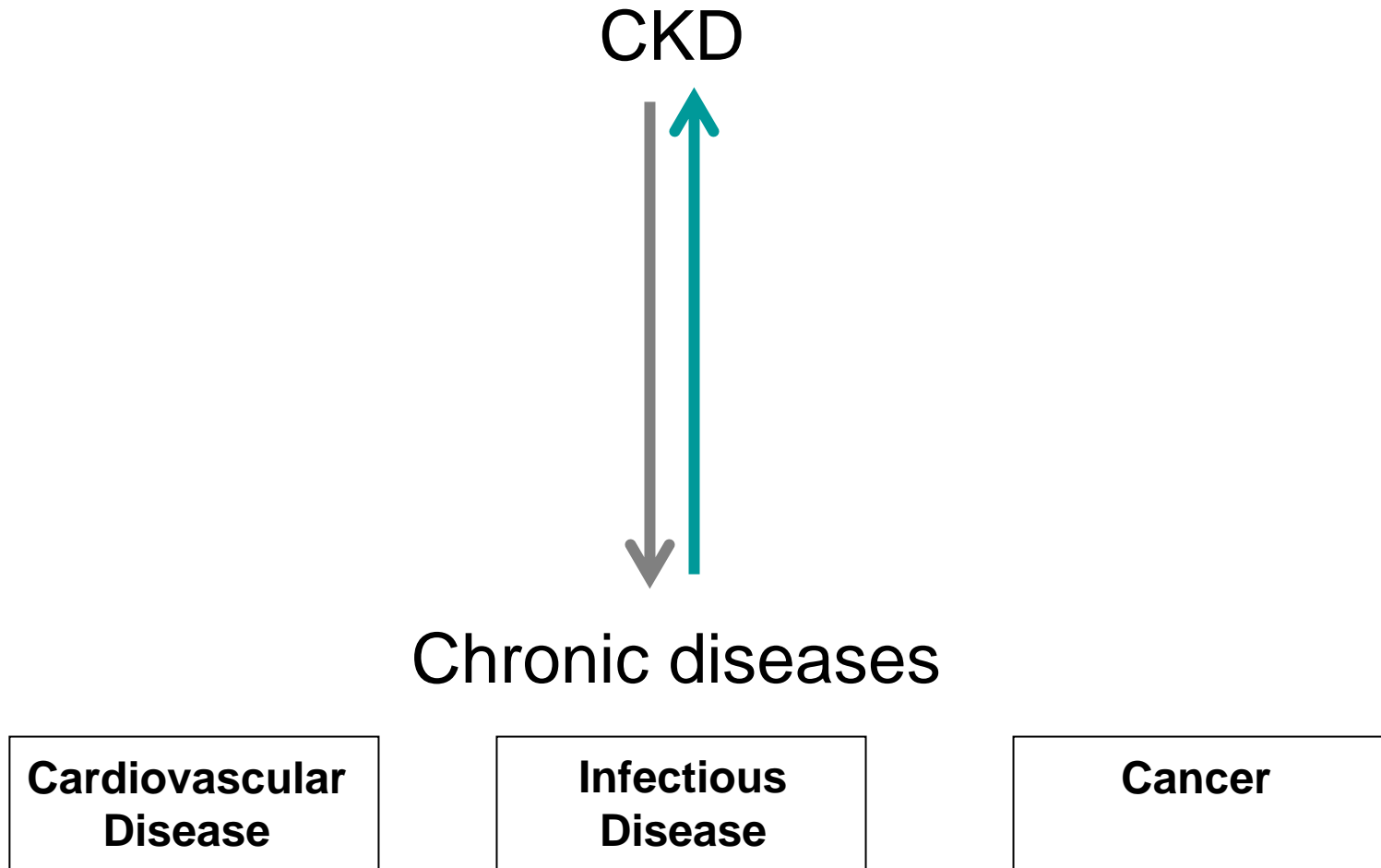
**CKD –
a noncardiovascular risk factor**

Cardiovascular Health Study
Older individuals in community (n=4637)



Fried et al., *JASN* 2005

CKD as a Global Public Health Problem



CKD as a Global Public Health Problem

Plenary Presentations

- **WHO Chronic Disease Perspective** (*R. Jacob*)
- **Cardiovascular disease** risk factors for CKD (*A. Levin*)
- Associations of CKD with **Infectious Disease** (*B. Jaber*)
- Associations of CKD with **Cancer** (*E. Cohen*)



Breakout Sessions

**Cardiovascular
Disease**

**Infectious
Disease**

Cancer



Plenary Discussion

CKD as a Global Public Health Problem

CKD

What is known ?

What can be done with what is known ?

→ **Clinical practice recommendations**

What needs to be known ?

→ **Research recommendations**

Chronic diseases

**Cardiovascular
Disease**

**Infectious
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Cancer

CKD as a Global Public Health Problem

CKD

What is known ?

Pub Med hits:

11030

58

2335

Chronic diseases

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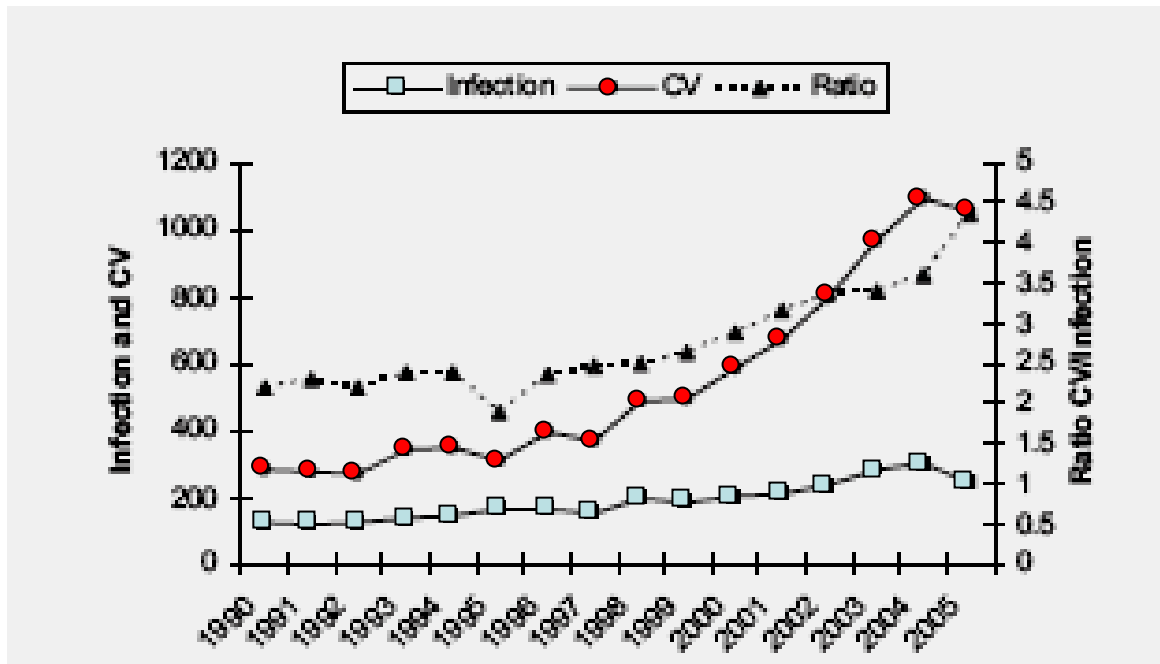
Cancer

CKD as a Global Public Health Problem

Little evidence \neq evidence for absence

Only in the last ten years has the association between CVD and CKD been extensively described !

Annual citation rates for CVD and infection in patients with CKD



Foley et al., *Advances in Chron Kid Dis* 2006

CKD as a Global Public Health Problem

CKD



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CKD as a Global Public Health Problem

CKD

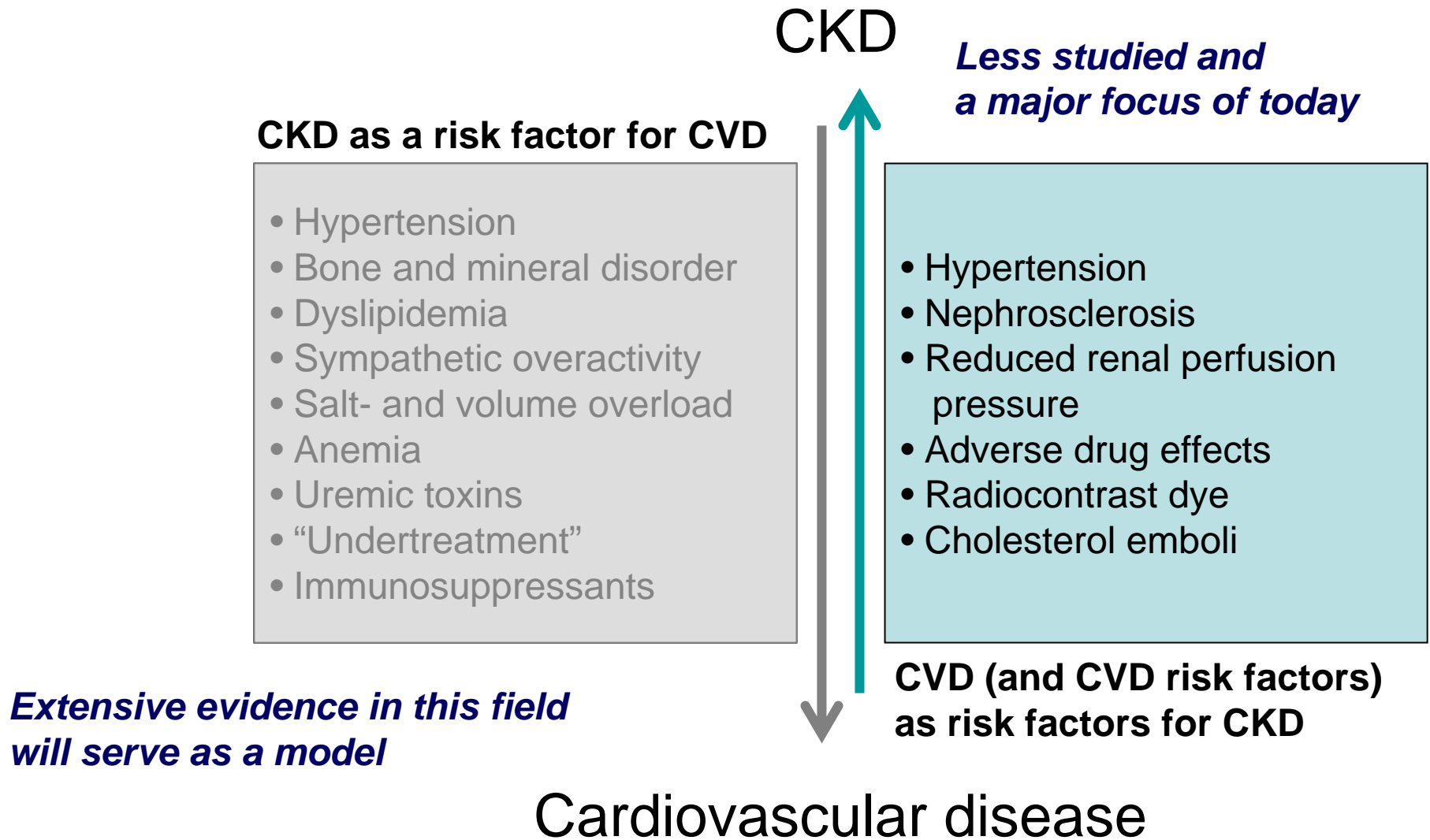
CKD as a risk factor for CVD

- Hypertension
- Bone and mineral disorder
- Dyslipidemia
- Sympathetic overactivity
- Salt- and volume overload
- Anemia
- Uremic toxins
- “Undertreatment”
- Immunosuppressants

*Extensive evidence in this field
will serve as a model*

Cardiovascular disease

CKD as a Global Public Health Problem



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CKD

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Cardiovascular disease

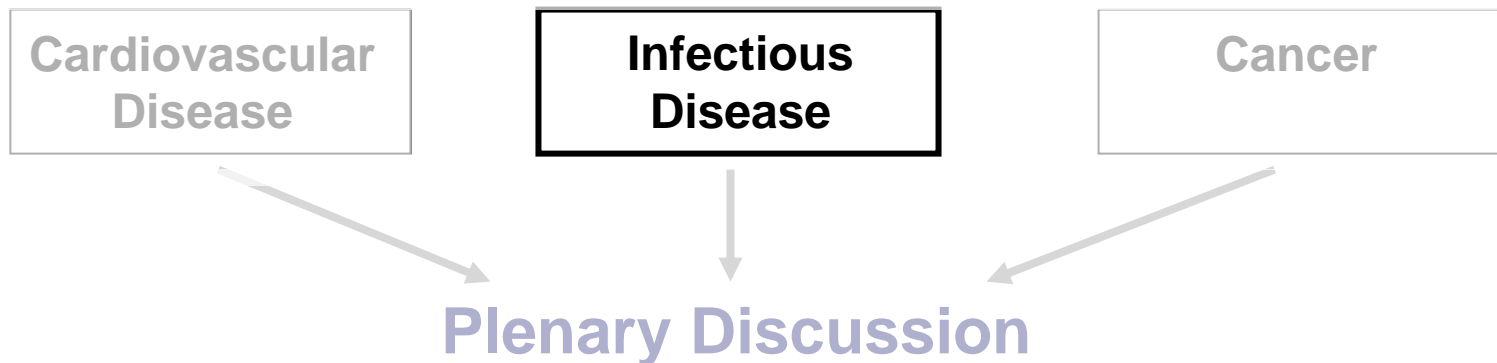
CKD as a Global Public Health Problem

Plenary Presentations

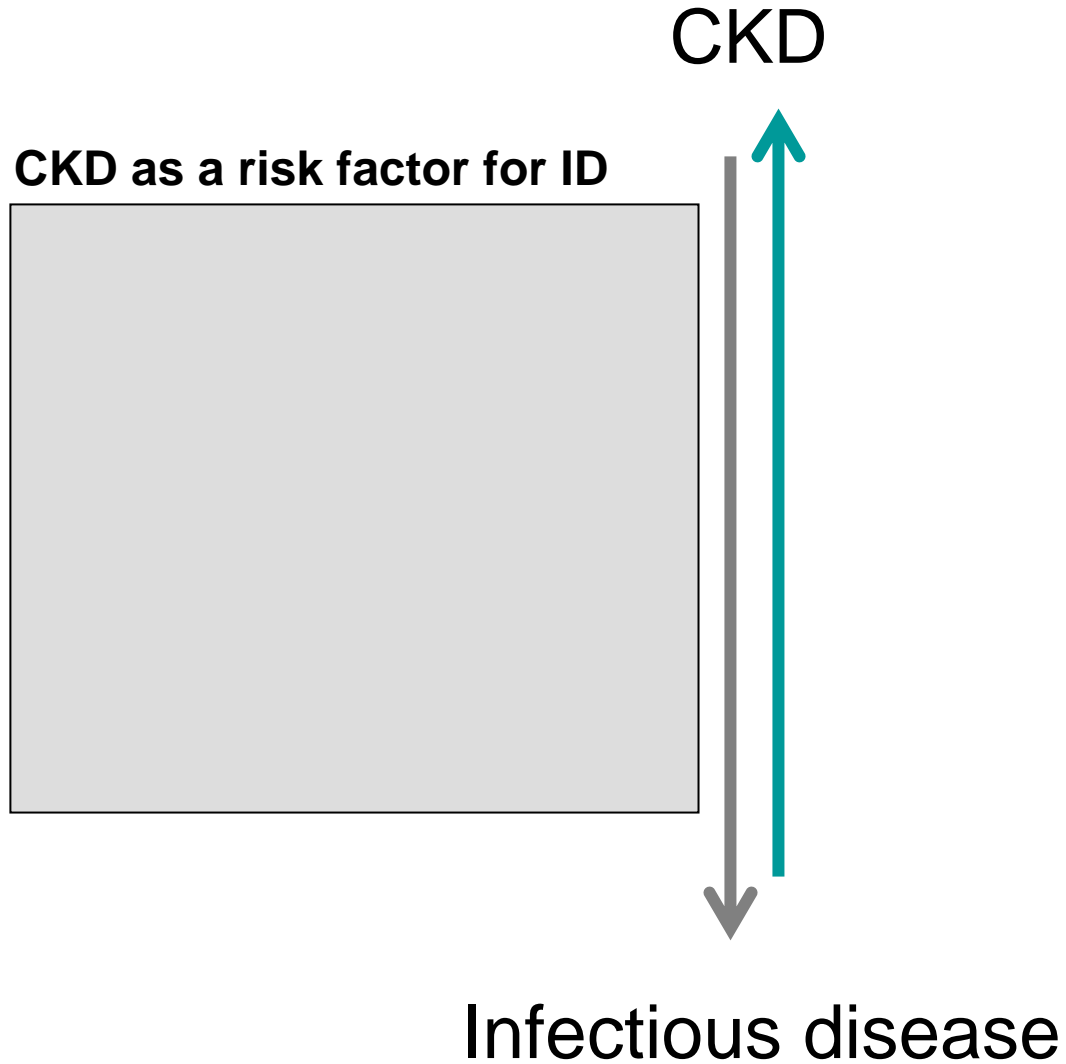
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Breakout Sessions



CKD as a Global Public Health Problem



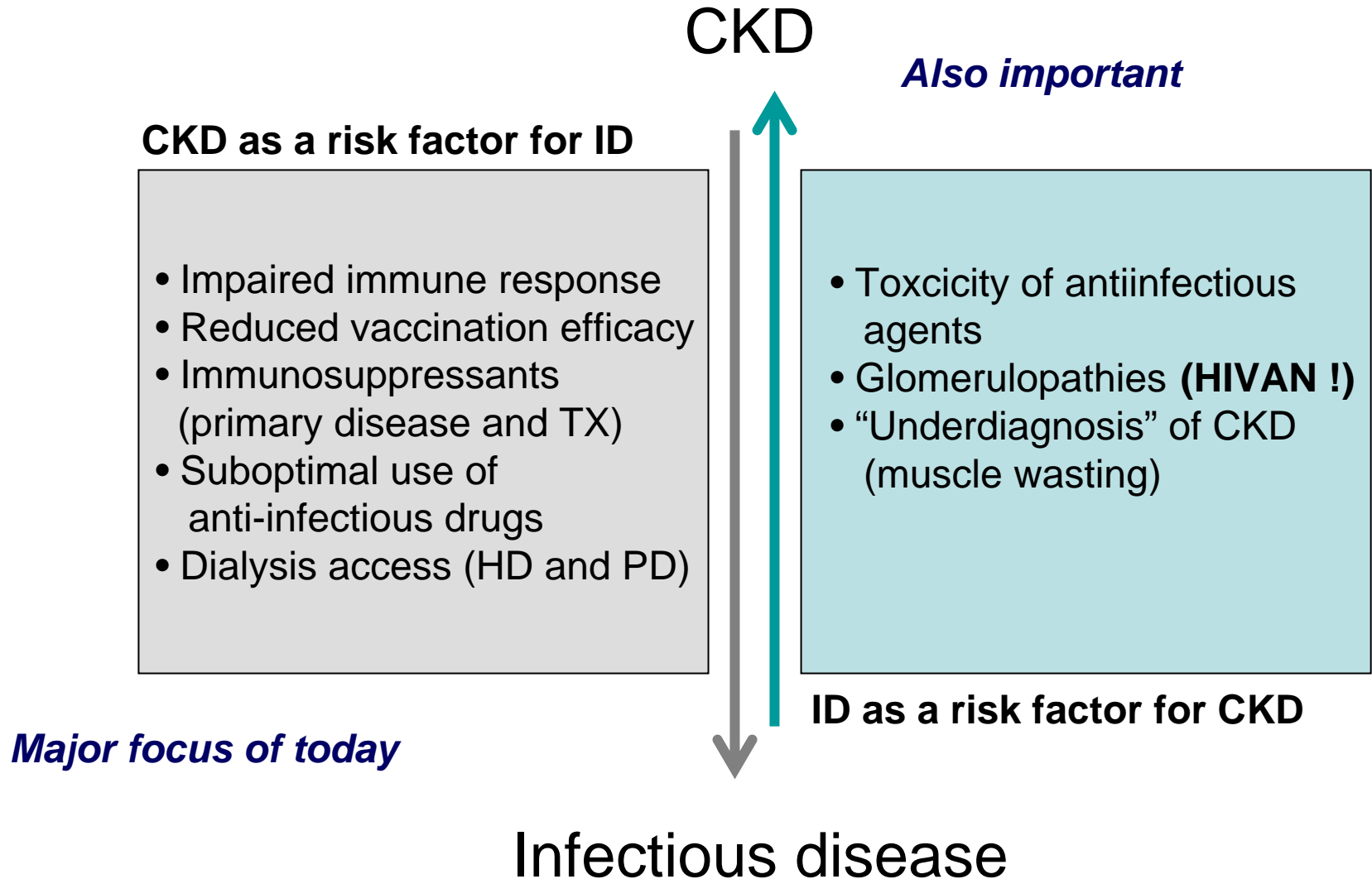
CKD as a Global Public Health Problem

Table 6. Proposed Framework for CKD as Risk Factor for Infectious Diseases

| Infectious Diseases (ID) | CKD prevalence | CKD as a risk factor for ID morbidity | CKD as a risk factor for ID mortality |
|--------------------------|----------------|---------------------------------------|---------------------------------------|
| HCV | | | |
| HBV | | | |
| HIV | | | |
| TB | | | |
| Malaria | | | |

Fokus will be on chronic viral and non-viral infections

CKD as a Global Public Health Problem



CKD as a Global Public Health Problem

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Cardiovascular
Disease

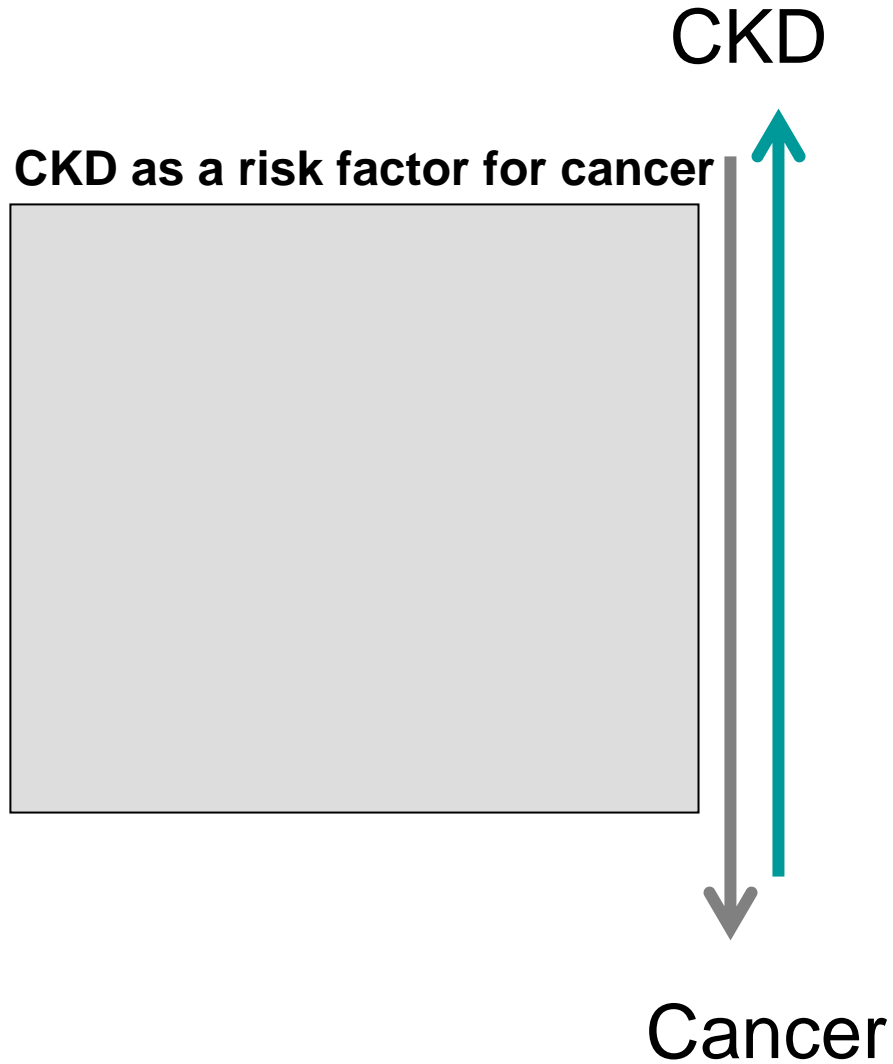
Infectious
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Plenary Discussion

CKD as a Global Public Health Problem

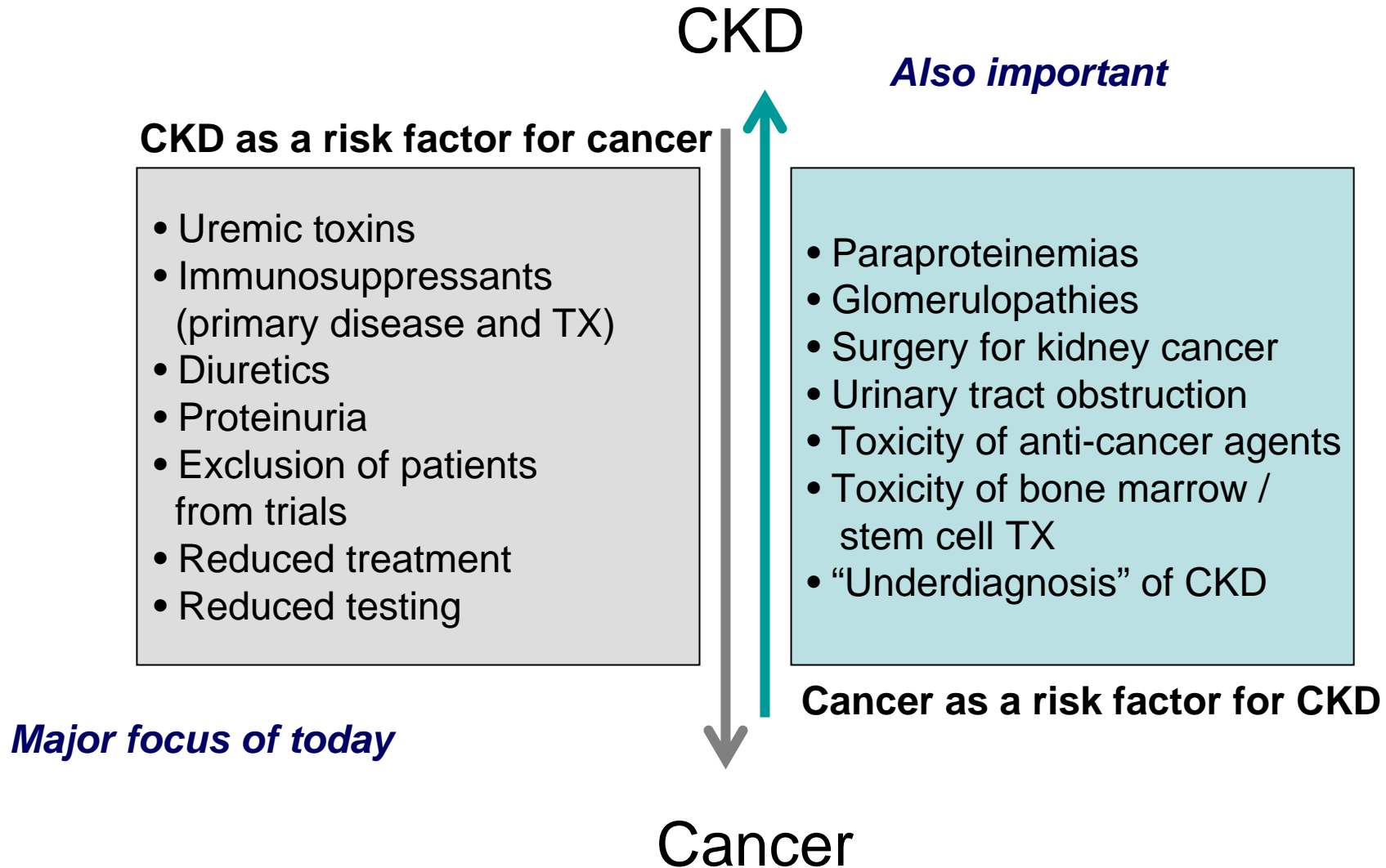


CKD as a Global Public Health Problem

Table 7. Proposed Framework for CKD as Risk Factor for Cancers

| Cancer | CKD prevalence | CKD as a risk factor for cancer morbidity | CKD as a risk factor cancer mortality |
|---------------------------------|----------------|---|---------------------------------------|
| Kidney and urinary tract tumors | | | |
| Other solid tumors | | | |
| Hematologic malignancies | | | |

CKD as a Global Public Health Problem



CKD as a Global Public Health Problem

CKD

Risk of getting lost in risk assessment and translation

- Consider direction of risk
- Distinguish between:
 - susceptibility risk factors
 - initiation risk factors
 - progression risk factors
- Try to distinguish between risk factors as markers vs causes

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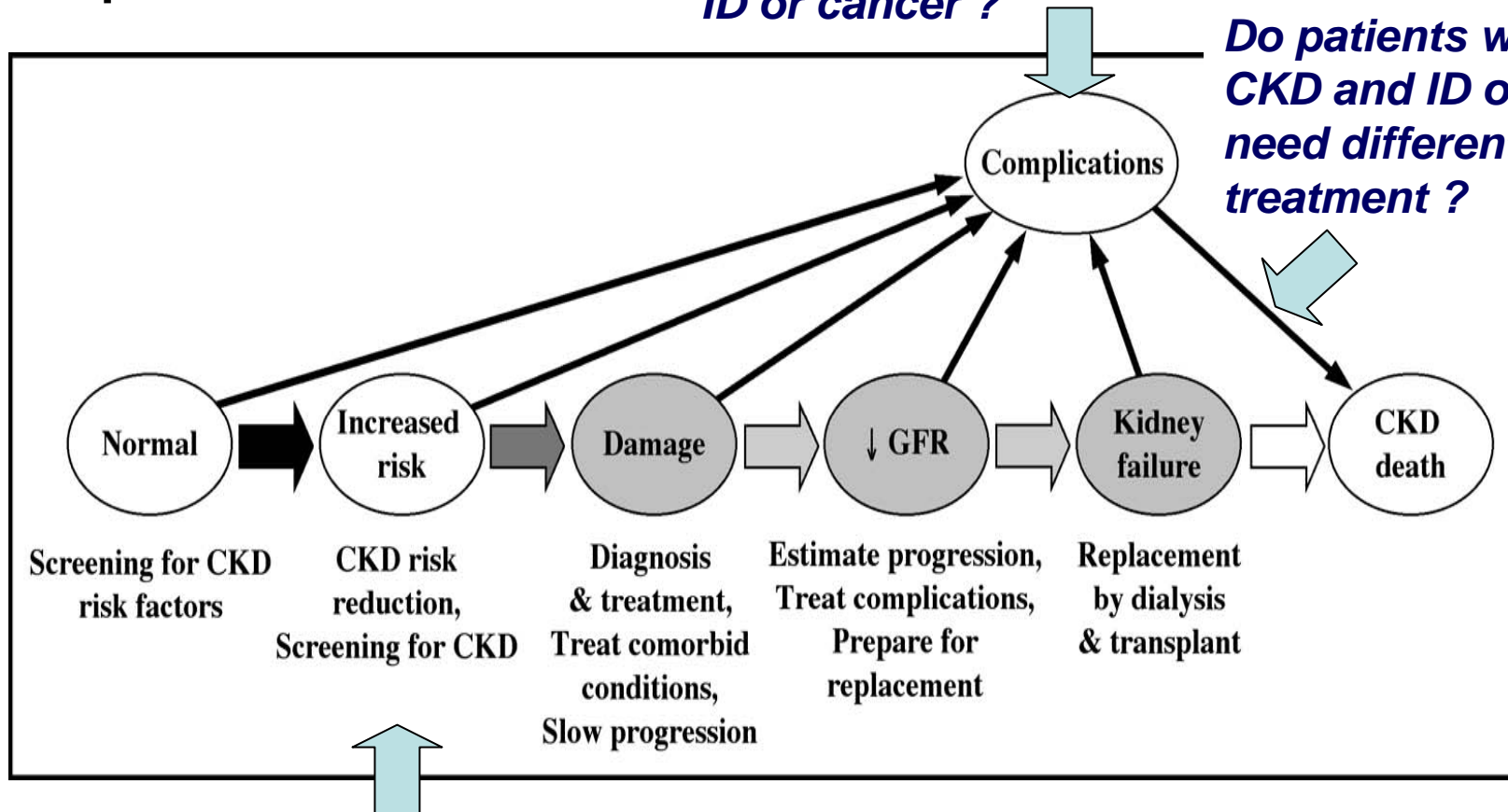
Cancer

CKD as a Global Public Health Problem

Some important questions:

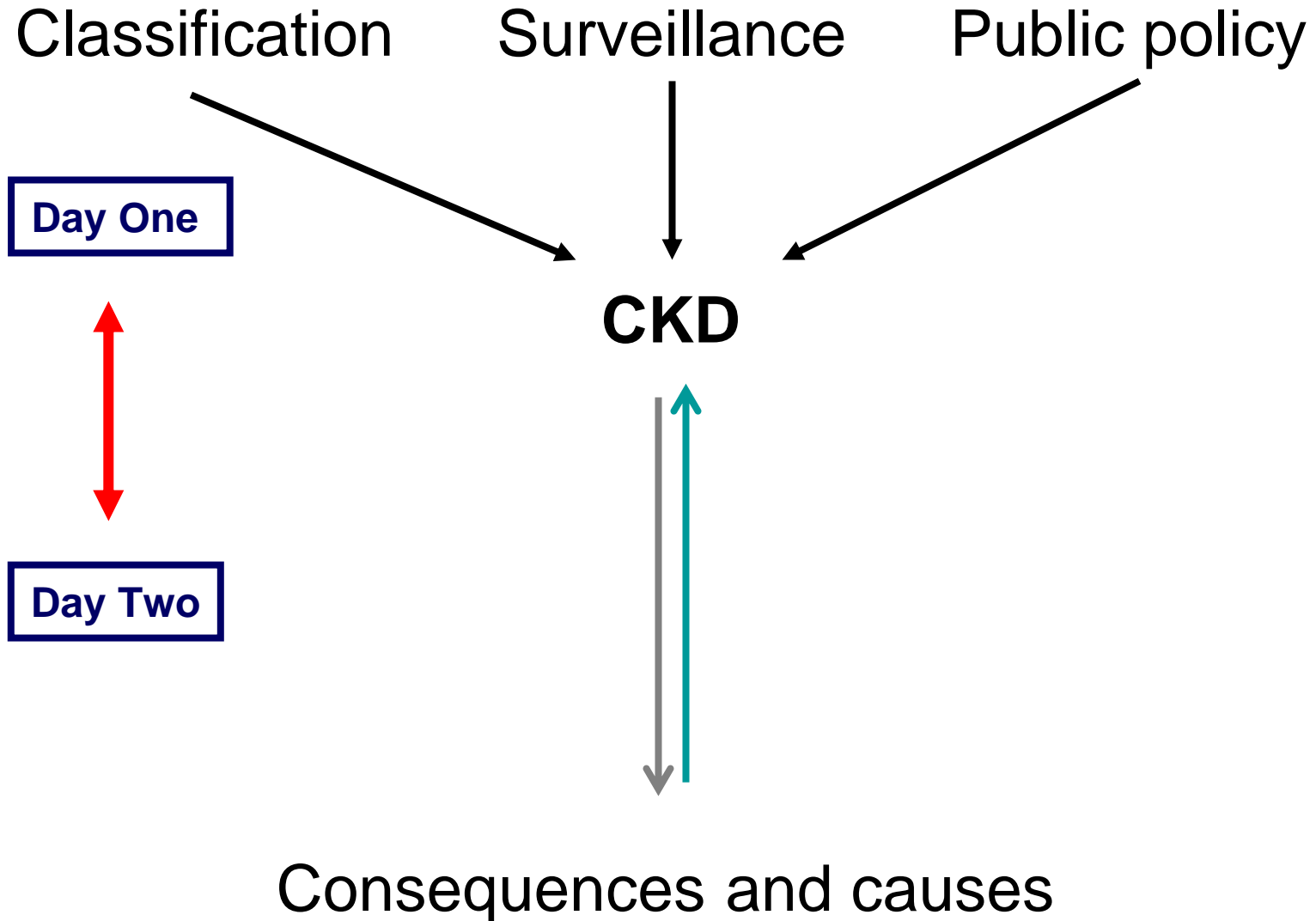
Should patients with CKD be screened for ID or cancer ?

Do patients with CKD and ID or cancer need different treatment ?



Should patients with chronic ID or cancer be screened for CKD ?

CKD as a Global Public Health Problem



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