## Empagliflozin slows kidney disease progression and cardiovascular death in at-risk CKD patients

The EMPA-KIDNEY collaboration trial

Anita Purdy July 2024 Seattle, WA

#### BACKGROUND



#### RESEARCHTRIAL



#### OUTCOMES



Application of sodiumglucose cotransporter-2 inhibitors (SLGT2i) in kidney disease Characteristics of participants and trial procedures Primary outcomes and results of using empagliflozin for patients with chronic kidney disease





#### **RESEARCH TRIAL**



#### **OUTCOMES**



Application of sodiumglucose cotransporter-2 inhibitors (SLGT2i) in kidney disease Characteristics of participants and trial procedures Primary outcomes and results of using empagliflozin for chronic kidney disease patients

# The intersection of sodium glucose cotransporter 2 inhibitors (SGLT2i)



Figure adapted from Chan JCH. *Medicina*. 2023;59(2):10.

# The intersection of sodium glucose cotransporter 2 inhibitors (SGLT2i)



Figure adapted from Chan JCH. *Medicina*. 2023;59(2):10.

# The intersection of sodium glucose cotransporter 2 inhibitors (SGLT2i)



Figure adapted from Chan JCH. *Medicina*. 2023;59(2):10.

#### BACKGROUND



#### RESEARCHTRIAL



#### **OUTCOMES**



Application of sodiumglucose cotransporter-2 inhibitors (SLGT2i) in kidney disease Characteristics of participants and trial procedures Primary outcomes and results of using empagliflozin for chronic kidney disease patients



Herrington WG, Staplin N. N Engl J Med. 2023; 388(2): 117–127.

### Characteristics of participants at randomization

6,609 Study Subjects	
Gender	33% female
Mean age	<b>63.8</b> years old
No prior CVD	<b>74%</b> no CVD
No prior diabetes	<b>54%</b> no diabetes
Urinary ACR > 300 mg/g	<b>52%</b> urinary ACR > 300 mg/g
RAS-inhibitor	86% RAS-inhibitor use

Herrington WG, Staplin N. *N Engl J Med*. 2023; 388(2): 117–127.

#### BACKGROUND



#### **RESEARCH TRIAL**



#### OUTCOMES



Application of sodiumglucose cotransporter-2 inhibitors (SLGT2i) in kidney disease Characteristics of participants and trial procedures

Primary outcomes and results of using empagliflozin for chronic kidney disease patients

### **PRIMARY** CARDIO-RENAL OUTCOME EVENTS (HR, 0.72; 95% Cl, 0.64 to 0.82; *P* < .001)

Percent of kidney disease progression or death from cardiovascular complications according to number of years on treatment\*

\*Empagliflozin represented 42 fewer primary outcome events per 1000 patients treated for 2 years





### **EMPAGLIFLOZIN**

Effectively reduces the combined outcome of kidney disease progression or cardiovascular death in patients at risk for CKD progression, regardless of diabetic status.

EMPA-KIDNEY is sponsored by Boehringer Ingelheim & others Herrington WG, Staplin N. *N Engl J Med*. 2023; 388(2): 117–127.

## Thank You