Table 1
Glycemic and CV entry criteria for the empagliflozin CV outcome event trial

Glycemic entry criterion (HbA1c):	Drug-naive patients: 7.0% to 9.0%
	Stable pharmacological therapy: 7.0% to 10.0%
CV entry criteria—any of the following:	History of MI (>2 months prior to enrolment)
	Evidence of CAD* in ≥2 major vessels or left main coronary artery
	Evidence of single-vessel CAD* with no scheduled revasc/previously unsuccessful revasc and:
	a) Positive non-invasive, functional stress test for ischemia (ECG, echo or nuclear) or
	b) Hospital discharge due to unstable angina pectoris ≤12 months before enrolment
	Hospital discharge due to unstable angina pectoris >2 months before enrolment with evidence of CAD* according to any of the following:
	a) Left main coronary artery
	b) ≥2 major vessels
	c) Single vessel with positive non-invasive, functional stress test for ischemia (ECG, echo or nuclear) and no scheduled revasc/previously unsuccessful revasc
	History of stroke (>2 months prior to enrolment)
	Peripheral occlusive arterial disease according to any of the following:
	a) Previous limb angioplasty, stenting or bypass surgery
	b) Previous limb or foot amputation due to circulatory insufficiency
	c) significant peripheral artery stenosis (>50%) in at least 1 limb (angiography or non-invasive)
	d) Ankle brachial index <0.9 in at least 1 limb

option to demonstrate CV superiority for the SGLT-2 inhibitor empagliflozin.

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Empagliflozin Improves Blood Pressure in Patients with Type 2 Diabetes (T2DM) and Hypertension

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In a phase III trial investigating the efficacy, safety and tolerability of the SGLT2 inhibitor empagliflozin (EMPA) compared with placebo, patients with T2DM (mean age 60.2 years and BMI 32.6 kg/m^2) and hypertension (mean seated systolic blood pressure [SBP] 130 to 159 mm Hg and diastolic blood pressure [DBP] 80 to 99 mm Hg) were randomized double blind and received EMPA 10 mg (n=276), EMPA 25 mg (n=276) or placebo (PBO; n=271) qd for 12 weeks. Co-primary endpoints were changes from baseline in HbA1c and mean 24-hour SBP (ambulatory blood pressure monitoring [ABPM]) at week 12. The key secondary endpoint was change from baseline in mean 24-hour DBP (ABPM) at week 12. EMPA 10 and 25 mg significantly reduced HbA1c and mean 24-hour SBP and DBP compared with placebo (Table). Adverse events (AEs) were reported by 48.9%, 51.4% and 52.6% of patients on EMPA 10 mg, 25 mg and PBO, respectively. Events consistent with volume depletion were reported in 1 patient (0.4%) on EMPA 10 mg, no patients on EMPA 25 mg and 1 patient (0.4%) on PBO. AEs consistent with urinary tract infection were reported in 4.0% of patients on EMPA 10 mg, 4.7% on EMPA 25 mg and 3.7% on PBO. AEs consistent with genital infection were reported in 5.1% of patients on EMPA 10 mg, 5.4% on EMPA 25 mg and 0.4% on PBO.

EMPA 10 mg and 25 mg qd were associated with significant and clinically meaningful reductions in BP compared with PBO, and were well tolerated in patients with T2DM and hypertension.

Adjusted means based on ANCOVA in full analysis set with last observation carried forward (LOCF) imputation. For blood pressure parameters, values following a change in antihypertensive therapy were set to missing and imputed via LOCF. Values after start of antidiabetic rescue medication were set to missing and imputed via LOCF for all parameters. For each dose group, statistical testing of primary and key secondary endpoints was hierarchical at alpha = 0.05. Further endpoints were called statistically significant if p values were smaller than nominal alpha = 0.05. *p<0.05 vs. placebo; **p<0.01 vs. placebo; ***p<0.001 vs. placebo.

	Placebo	Empagliflozin 10 mg	Empagliflozin 25 mg
Baseline HbA_{1c}, % (SE)	7.90 (0.04)	7.87 (0.05)	7.92 (0.04)
Change from baseline in HbA_{1c}, % (SE)	0.03 (0.04)	−0.59 (0.04)***	−0.62 (0.04)***
Baseline 24-h SBP (ABPM), mm Hg (SE)	131.72 (0.72)	131.34 (0.78)	131.18 (0.73)
Change from baseline in 24-h SBP (ABPM), mm Hg (SE)	0.48 (0.49)	−2.95 (0.48)***	−3.68 (0.48)***
Baseline mean seated office SBP, mm Hg (SE)	141.98 (0.75)	142.32 (0.73)***	141.87 (0.76)***
Change from baseline in mean seated office SBP, mm Hg (SE)	−0.67 (0.70)	−4.60 (0.69)	−5.47 (0.69)
Baseline 24-h DBP, mm Hg (SE)	75.16 (0.45)	75.13 (0.50)	74.64 (0.45)
Change from baseline in 24-h DBP, mm Hg (SE)	0.32 (0.29)	−1.04 (0.28)***	−1.40 (0.28)***
Baseline mean seated office DBP, mm Hg (SE)	83.67 (0.43)	84.13 (0.44)	83.82 (0.41)
Change from baseline in mean seated office DBP, mm Hg (SE)	−1.13 (0.39)	−3.06 (0.39)***	−3.02 (0.39)***

Adjusted means based on ANCOVA in full analysis set with last observation carried forward (LOCF) imputation. For blood pressure parameters, values following a change in antihypertensive therapy were set to missing and imputed via LOCF. Values after start of antidiabetic rescue medication were set to missing and imputed via LOCF for all parameters. For each dose group, statistical testing of primary and key secondary endpoints was hierarchical at alpha = 0.05. Further endpoints were called statistically significant if p values were smaller than nominal alpha = 0.05.
* p<0.05 vs. placebo.
** p<0.01 vs. placebo.
*** p<0.001 vs. placebo.