

EMPA-KIDNEY

• An RCT and 2 years post-trial follow-up

MAIN INCLUSION:

- eGFR 20 to <45 mL/min/1.73 m²; or
- eGFR 45 to <90 + UACR ≥200 mg/g

RANDOMIZED ALLOCATION:

- Empagliflozin 10 mg once daily (n=3304), or
- matching placebo (n=3305)

Plus standard care

OUTCOMES OF INTEREST IN THIS WORK:

- Quality-adjusted life years (QALYs)
- Healthcare use and UK healthcare costs (£)
- Probability of cost-effectiveness in 2/4 years

ACTIVE TRIAL PERIOD

BASELINE CHARACTERISTICS:

Age (Mean)	64 years
Female (%)	33%
Prior diabetes (%)	46%
eGFR (Mean±SD)	37 (±14) mL/min/1.73m ²
UACR (Median (Q1-Q3))	329 (49-1069) mg/g
Quality of life (Mean±SD)	0.85 (±0.17)
FOLLOW-UP: median 2.0 years (1.5-2.4)	

POST-TRIAL FOLLOW-UP

- Empagliflozin arm (n=2472)
- Placebo arm (n=2419)

FOLLOW-UP: median 2.0 years (2.0-2.1)

Table: Effects of empagliflozin on healthcare use and QALYs

	Mean Empagliflozin	Mean Placebo	Mean Difference, (95% CI)
Over 2 years (based on ACTIVE TRIAL data)			
<i>Total QALYs</i>	1.641	1.629	0.012 (0.001, 0.022)
<i>Days of healthcare use</i>			
• Study empagliflozin	637	-	637 (630, 643)
• Hospital admissions	4.4	5.3	-0.9 (-1.8, 0.0)
• Selected concomitant medications	3478	3550	-72 (-177, 33)
• ESKD	7.9	10.2	-2.3 (-4.9, 0.3)
<i>Costs of healthcare</i>			
• Study empagliflozin	£826	-	£826 (818, 835)
• Hospital admissions	£1080	£1319	£-239 (-449, -29)
• Selected concomitant medications	£1228	£1358	£-130 (-214, -47)
• Cost of ESKD	£606	£814	£-208 (-414, -2)
• <i>Total costs</i>	£3740	£3491	£249 (-75, 573)
Over further 2 years (based on 2 years POST-TRIAL data)			
• Days in ESKD	46	57	-11 (-20, -2)
• Costs of ESKD	£3153	£3995	£-842 (-1441, -242)
Over 4 years (Years 3-4 ESKD costs only)			
• Total costs	£6894	£7487	£-593 (-1384, 198)

Figure 1: Mean QALYs and costs differences by key subgroups

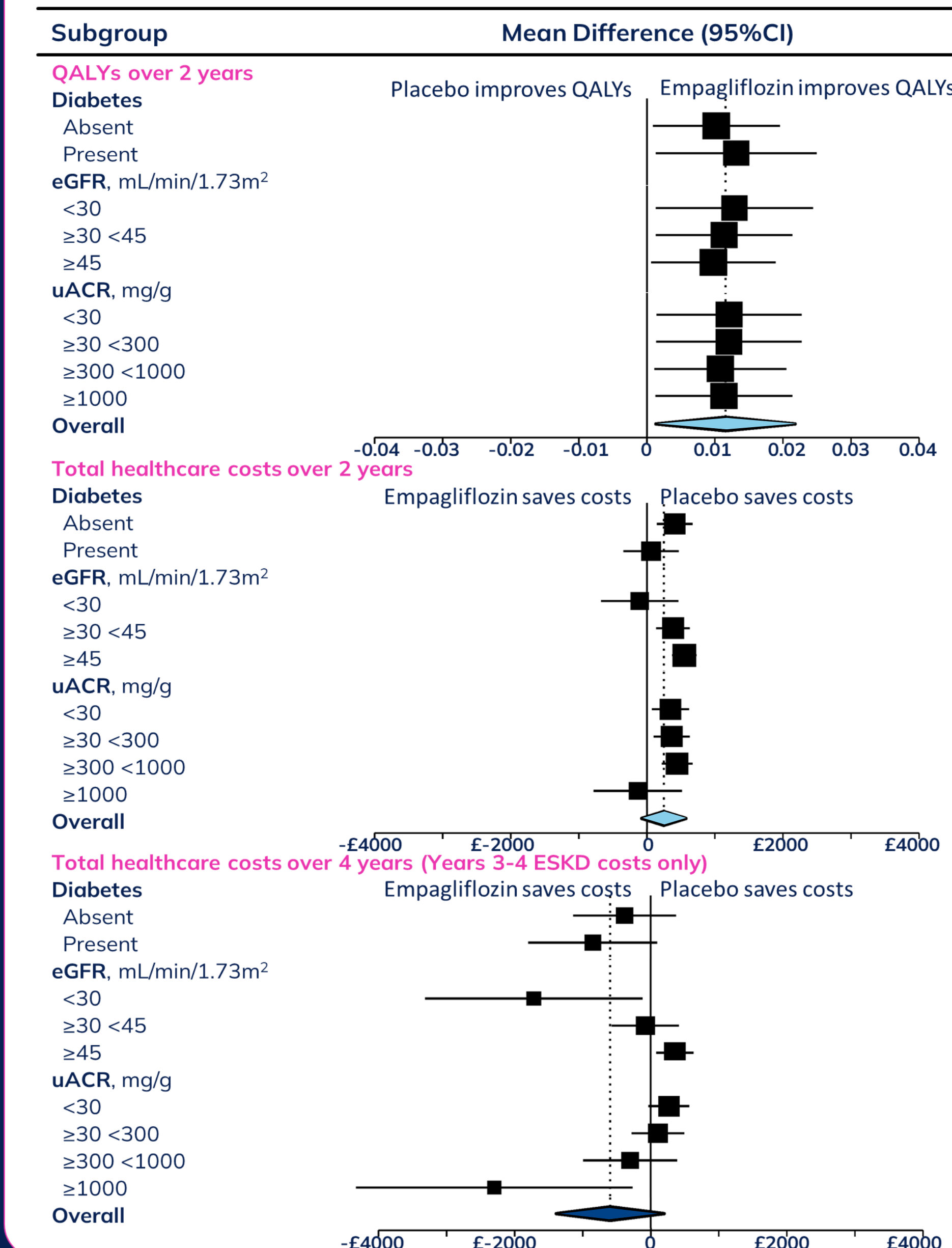
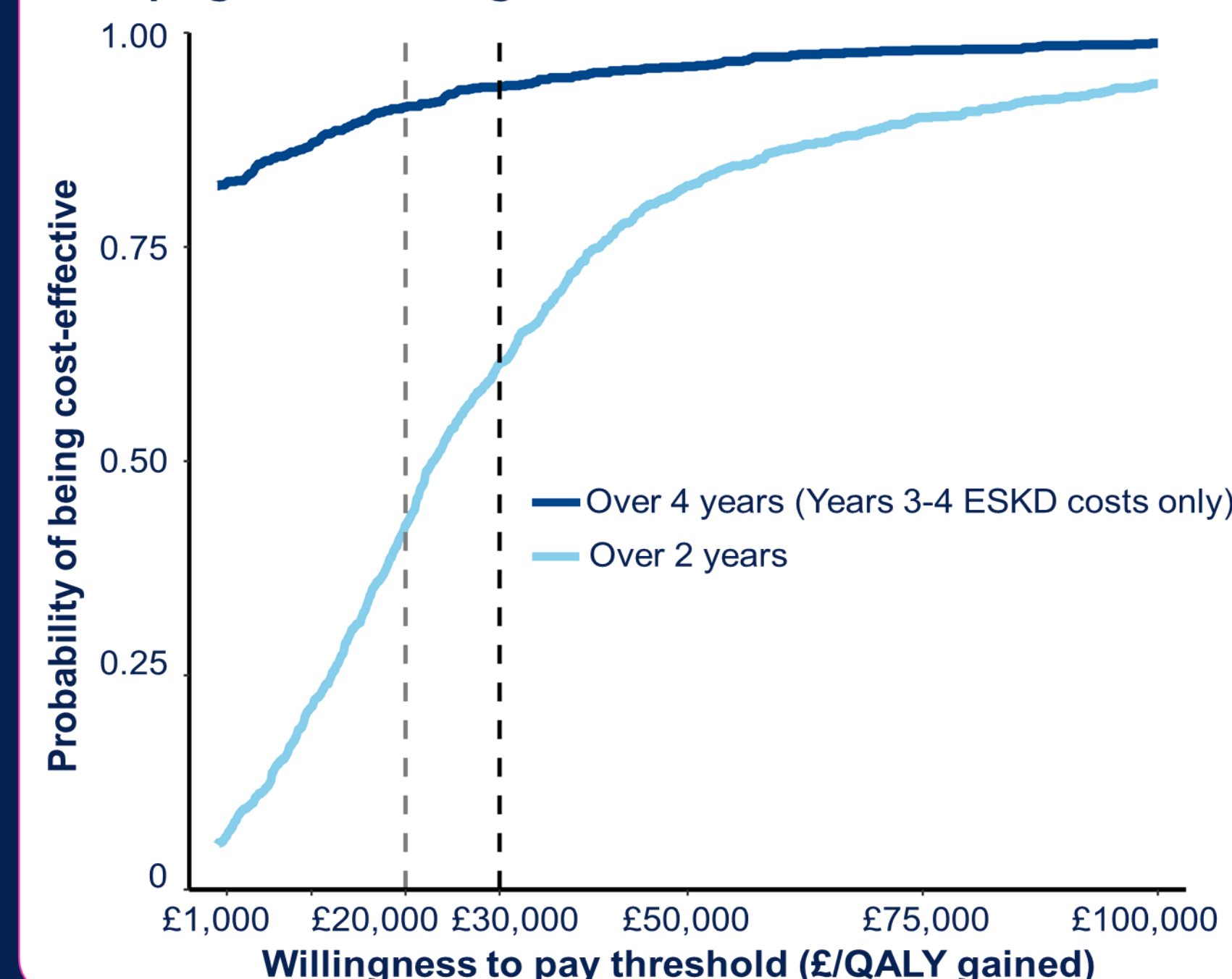


Figure 2: Probability of 2 years treatment with empagliflozin being cost-effective



CONCLUSIONS:

- In EMPA-KIDNEY, empagliflozin over 2 years led to lower other healthcare use & costs, more QALYs, and high likelihood of cost-effectiveness over 4 years.
- The benefits in reducing time in & cost of ESKD increased during the 2 years post-trial follow-up.
- Future work will model the full effects of longer-term empagliflozin across CKD patients.