Health-Related Quality of Life in Adult Patients With Focal Segmental Glomerulosclerosis (FSGS): Sparsentan Versus Irbesartan

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RESULTS

- Of 371 patients in DUPLEX (i.e., including pediatric patients), 306 adult patients (91% of the adults in the study population) completed the KDQOL-36. Baseline patient demographics and KDQOL-36 scores were similar for SPAR and IRB (**Table 1**).

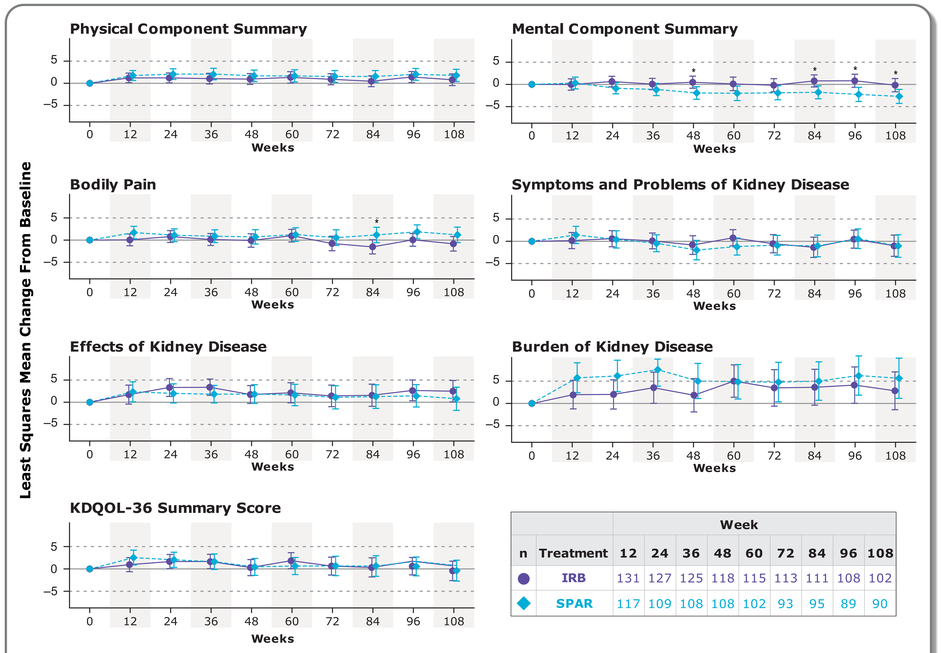
Table 1. Demographics and KDQOL-36 scores

Characteristic	SPAR (N = 148)	IRB (N = 158)
Age (years), mean (SD)	45.5 (14.6)	44.7 (15.2)
Male sex, no. (%)	85 (57.4)	87 (55.1)
Hispanic or Latino, no. (%)	23 (15.5)	36 (22.8)
Race, no. (%)		
Asian	23 (15.5)	25 (15.8)
Black	13 (8.8)	6 (3.8)
White	105 (71.0)	115 (72.8)
Other	7 (4.7)	12 (7.6)
KDQOL-36 Scores, mean (SD)		
Physical Component Summary	44.8 (10.38)	46.4 (10.09)
Mental Component Summary	49.8 (8.38)	48.5 (10.12)
Bodily Pain	47.9 (10.81)	49.3 (10.32)
Symptoms/Problems of Kidney Disease	82.8 (16.05)	82.9 (16.51)
Effects of Kidney Disease	80.1 (20.34)	82.3 (18.93)
Burden of Kidney Disease	61.5 (25.85)	64.3 (27.74)
KDQOL-36 Summary Score	78.5 (16.54)	79.7 (15.66)

SPAR, sparsentan; IRB, irbesartan; SD, standard deviation; KDQOL-36, Kidney Disease Quality of Life-36.

- Notable improvements were observed in LS mean Burden of Kidney Disease scores compared with baseline in both groups with a 5-point clinically meaningful change observed at week 12 and maintained the meaningful change for 7 of 9 timepoints through week 108 but at week 60 only for IRB (**Figure 1**); however, there were no clinically meaningful differences between SPAR and IRB although the nominal *P* value was less than 0.05 for a few timepoints (e.g., MCS at week 108, Bodily Pain score at week 84).

Figure 1. Least Squares Mean Change From Baseline for KDQOL-36 Scores by Treatment and Visit

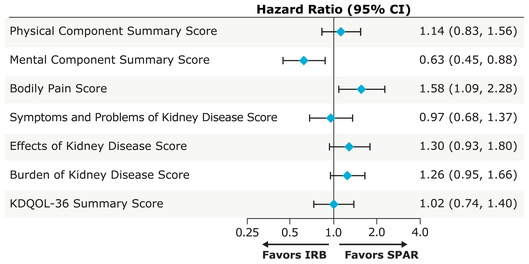


n	Treatment	Week 12	24	36	48	60	72	84	96	108
●	IRB	131	127	125	118	115	113	111	108	102
◆	SPAR	117	109	108	108	102	93	95	89	90

*$P < 0.05$ for differences between SPAR and IRB. Note: Vertical bars indicate 95% CIs. Dotted lines indicate meaningful changes thresholds. A higher score indicates better HRQOL/functioning. SPAR, sparsentan; IRB, irbesartan; CI, confidence interval.

- Hazard ratios for time to first clinically meaningful improvement were close to 1 for most scores suggesting no difference between SPAR and IRB, except for Mental Component Summary score favoring IRB and Bodily Pain score favoring SPAR (**Figure 2**).

Figure 2. Hazard Ratios for Time to First Improvement in KDQOL-36 Scores



SPAR, sparsentan; IRB, irbesartan; CI, confidence interval.

CONCLUSIONS

Preservation of HRQOL during treatment is an important therapeutic goal. These results suggest that adult patients with FSGS in DUPLEX had meaningful improvement in the burden of kidney disease and were able to maintain a relatively stable HRQOL over a 2-year treatment period.

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DISCLOSURES

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BACKGROUND

- DUPLEX (NCT03493685) demonstrated a greater sustained antiproteinuric effect with sparsentan (SPAR) compared with maximally dosed irbesartan (IRB) with a favorable safety profile in patients with primary focal segmental glomerulosclerosis (FSGS), genetic FSGS, and FSGS of unknown cause.[1]
- As many symptoms associated with kidney disease are subjective experiences that only patients can describe, patient-reported outcomes (PROs) have become endpoints of interest.

OBJECTIVE

- To evaluate the effect of SPAR compared with IRB on health-related quality of life (HRQOL) in adults with FSGS enrolled in DUPLEX during the double-blind period.

METHODS

Data:

- Kidney Disease Quality of Life-36 (KDQOL-36) administered at baseline and every 12 weeks to week 108 of the double-blind period for adult patients.

PRO Scores:

- KDQOL-36 Kidney-target subscale and Summary[2] scores (range 0 to 100, with higher scores representing better quality of life);[3] Physical Component Summary, Mental Component Summary, and Bodily Pain scales from the SF-12 (normalized to mean of 50 and standard deviation of 10 based on the 1998 general US population).

Analysis:

- Changes from baseline analyzed using least-squares (LS) means from mixed models for repeated measures (MMRMs).
- Time to first improvement (in weeks) using Cox proportional hazards models with randomization stratification factors. First improvement - earliest beneficial change in score relative to baseline reaching or exceeding a meaningful change threshold during the treatment period with a score change of 5 considered clinically meaningful.[4-6]

LIMITATIONS

- DUPLEX was not powered to evaluate treatment differences in PROs. All analyses presented here are considered exploratory.
- The KDQOL-36 may not be sensitive enough to detect all the differences associated with the between-treatment-arm differences in clinical parameters observed in the DUPLEX study.
- Time-to-event analyses rely on definition of a meaningful change threshold that is clinically relevant.[7,8] Although a change of 3 to 5 points in KDQOL-36 scale scores is generally considered clinically meaningful change[4-6] thresholds of meaningful change have not been standardized for patients with FSGS.

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