Methods (cont’d)

- We computed simulated and observed transplant and waitlist mortality (WLM) counts and rates, overall and by lung allocation score (LAS).

- We compared baseline characteristics of adults in the older TSAM cohort with the newer observed cohort using chi-squared tests for difference in distribution.

Results

- From the TSAM to observed cohorts, lung candidates became older and sicker (Table 1).

- In the newer observed cohort, 31.3% of candidates were aged ≥65 years, compared with 13.5% in the TSAM cohort.

- Overall observed transplant rates were 1.5 times higher than predicted, 202 transplants per 100 waitlist years compared with 137 (Fig 1). This increase was expected, as increased donor supply was having an increasing transplant rates for all organs.

Results (cont’d)

- WLM rates were 1.3 times higher than predicted, reflecting the increased illness severity of the waitlist population in the recent cohort.

- Although rates were not the same, the pattern of higher transplant and WLM rates at higher LAS was similar.

- For candidates with LAS ≥40, predicted transplant rates were 5- to 13-fold higher than for candidates with LAS <35; in the observed cohort, transplant rates were 2.2- to 8.5-fold higher (Table 2).

- For candidates with LAS <35, predicted WLM rates were 6- to 39-fold higher than for candidates with LAS <35; in the observed cohort, WLM rates were 8- to 60-fold higher.

- The LAS <35 group had higher predicted transplant rates than was observed, and the number of deaths relative to the total was larger (27% vs. 10% of the total deaths).

Summary and Conclusions

- Although exact predicted transplant and waitlist mortality rates were not the same, the relative outcomes patterns by LAS were similar.

- High-LAS groups had high predicted and observed transplant and WLM rates compared with low-LAS groups.

- Some differences in magnitude of these rates may be attributable to changes in the lung waitlist population, although imperfections in simulation also contribute.

- As a tool for predicting expected change in waitlist outcomes due to change in allocation rules, TSAM remains valuable, but updates to the cohort and models are needed.

Authors have no financial relationships to disclose.