

# Lung Allocation System (LAS) Refinements and Refine Lung Data Fields FAQ

## LAS Refinements FAQ

### **Why was the calculation updated?**

LAS is a measure of an individual candidate's expected waitlist survival and post-transplant survival based on analysis of past patients. The LAS was last updated nearly 10 years ago in 2012. That updated LAS calculation was based on information from patients from 2006-2008.

Transplant and the experience of patients has changed since that update. Some variables that used to impact waitlist mortality and post-transplant survival are less predictive and some variables are now more predictive.

Using an updated calculation better reflects a candidate's need for transplant. The updated calculation will also be used in the upcoming changes to move to [Continuous Distribution](#).

### **What were the changes to the LAS?**

The new cohort is from 2015-2018 and the baseline daily probability values have changed. The baseline daily probability is the actual score for a given number of days expected survival. If the calculation says a patient is expected to live 90 days in both the current and in the revised, their score will still change.

All of the coefficients for covariates changed based on the new cohort. While the changes are small, they can have a sizeable impact because they are used as exponents in the calculation. Some covariates were removed because they only applied to very few patients and there wasn't enough data to be confident these were predictive of waitlist mortality or post-transplant survival.

### **Which variables were removed from the calculation?**

For the waitlist mortality calculation, the following were removed:

- Obliterative Bronchiolitis diagnosis
- Lymphangioleiomyomatosis diagnosis
- Eisenmenger's syndrome diagnosis
- Bilirubin increase >50%, for certain candidates
- Diabetes diagnosis
- FVC < 80% spline for certain candidates
- Cardiac index < 2 L/min/m<sup>2</sup>
- CVP > 7mm Hg spline, group B

For the post-transplant survival calculation, the following were removed:

- Lymphangioleiomyomatosis diagnosis

- Creatinine increase > 150%
- Eisenmenger's syndrome diagnosis
- Pulmonary fibrosis, other diagnosis
- Functional status of no assistance needed

**If the values are no longer used in the LAS, do I still have to report them?**

Yes. The OPTN is continuing to collect the underlying data on all variables to allow for continued evaluation and potential inclusion in future updates.

**Can you tell me exactly why my candidate's LAS score changed?**

Nearly every coefficient has changed, in addition to some variables being entirely removed so, while the changes individually can look small, cumulatively they can have a large impact. This makes it difficult to pinpoint the exact reason for the change. Review your candidate's clinical profile on their record and consider the impact of some of the more significant changes to the score, such as the coefficient for serum creatinine being reduced significantly and the removal of multiple variables from the calculation.

**What can programs do if they have questions or concerns about their candidates score?**

OPTN Policy 10.2 Priority and Score Exceptions outlines how a program can request an exception for an overall LAS score if they believe their candidate's actual LAS is not reflective of the candidate's condition.

Additionally, programs can check their candidates' labs to ensure they are the most reflective of the candidate's current medical state.

Programs can contact OPTN Member Questions for any policy related questions at [member.questions@unos.org](mailto:member.questions@unos.org).

**Were there any changes to how the system flags missing or expired values?**

Only the clinical values used in the calculation will show as missing or expired on the candidate record. A policy default value will not be substituted for missing data if the clinical value is no longer used in the calculation. There were no other changes to how values used in the calculation expire.

**What if my candidate had an exception for one of the values that are no longer used in the calculation?**

If the candidate had an exception for CVP or FVC (actual or percent predicted), they will no longer be receiving the score benefit for that clinical value.

**Are there other changes to lung allocation in the works?**

The Lung Committee is currently proposing larger changes to the allocation system – [Continuous Distribution](#).

Continuous Distribution uses the elements of the LAS – waitlist mortality and post-transplant survival – in its composite allocation score to determine the order of the match run.

For more information, see this document: [Details on changes to the LAS covariates](#)

## Refine Lung Data Fields FAQ

### **I now see two fields for reporting height and weight dates, as opposed to the single evaluation date that covered both. Why was this change made?**

With the single evaluation date, members were sometimes confused about the collection of height and weight. For instance, if they collected weight but didn't collect height on the same day, they felt that they were not documenting correctly by entering an evaluation date that applied to both.

### **Do both height and weight need to be updated every 6 months?**

The dates for height and weight are now entered separately. Although only weight expires for the calculation of BMI, it is expected that when height is measured, transplant hospitals will also document that value in the candidate record.

### **What changes were made to supplemental oxygen?**

Prior to implementation, the L/min O2 field in the candidate record accepted up to three decimals. The upper limit of the range for L/min was 26.3, which meant that a user could enter 26.333 but it would not be accepted in the field. The upper limit specified in policy is 26.33. To improve user experience and align better with policy, the field now accepts two decimals and the upper limit of the range is 26.33.

If your candidate is on 100% O2, or higher than the upper limit of the L/min allowed, please enter 26.33. This will not be converted automatically if you have entered 26.3 (the prior upper limit), so make sure to update your candidate if this is their value.

### **What changes were made to the pulmonary fibrosis diagnoses?**

There are several diagnoses related to pulmonary fibrosis and not all were receiving the coefficient applied to "pulmonary fibrosis, other specify cause." The options for "secondary pulmonary fibrosis, specify cause," and the more commonly used "pulmonary fibrosis, other specify cause" were collapsed into one option - "pulmonary fibrosis, other specify cause."

The coefficient that is applied for candidates based on a diagnosis of "pulmonary fibrosis, other specify cause" is also now applied to candidates with the more specific "COVID-19: pulmonary fibrosis" diagnosis.

### **What can programs do if they have questions or concerns about their candidates score?**

For any questions regarding these policy changes, please contact Member Questions at [member.questions@unos.org](mailto:member.questions@unos.org)