

OPTN Lung Allocation System (LAS) Changes Frequently Asked Questions

LAS Revisions

Will this new LAS revision only apply to patients listed after implementation of the LAS score revision on Feb 19, 2015?

No, the LAS revision applies to all candidates listed in the LAS Waitlist from implementation day forward.

Why has my candidate's score changed significantly with the revised LAS implementation?

You may have noticed that your candidates' LAS increased or decreased, sometimes significantly, with the implementation of the revised LAS on February 19. Please remember that the revised LAS affected every candidate, but did not affect each candidate in equal amounts. For example, the addition of total bilirubin as a factor in the LAS was designed to target candidates in diagnosis group B whose scores were not previously reflected accurately in the LAS system. Because of various changes in the calculation, such as the new way in which 6-minute walk distance is incorporated into the calculation and the addition of total bilirubin as a factor in the calculation, a score of 50 on February 18 does not mean the same thing as a score of 50 on February 19. Because the calculation is multi-variable, any number of factors could be the reason a candidate's score may increase or decrease in the revised LAS. The OPTN/UNOS is continuously monitoring the implementation, and we are confident that the new LAS revisions are functioning as intended. If you have any questions, please don't hesitate to contact us.

Blood Gas

Is there any impact to the candidate's LAS if they are on oxygen or off oxygen when their blood gas is drawn?

The oxygen that is being administered to the patient when PCO₂ is measured can affect the PCO₂ value; and the PCO₂ may affect the LAS. But the oxygen used when PCO₂ is measured is not used directly in the LAS calculation. Only the amount of oxygen used while at rest will directly affect the LAS.

Right Heart Catheterization

Can the CVP test date from the right heart cath be used, or does this value have to be separate from the heart cath date?

At implementation, if the CVP value is obtained from a right heart catheterization, then the same date can be used in the CVP date field. If the CVP is obtained by other means rather than the right heart catheterization, then report the date of the test used to obtain the CVP value.

Will a right heart catheterization or other means to check CVP value need to be done every six months?

If the program obtains CVP by performing a right heart catheterization, then the transplant program does not have to perform the heart catheterization every six months to update the values. However, if the transplant program does perform a heart catheterization within the six month period, it must report updated values for those fields. Remember, if a right heart catheterization cannot be performed but the transplant program believes the candidate's LAS values should be different, the transplant program can submit an exception request to the Lung Review Board for an estimated CVP value.

If the program performs a procedure other than right heart catheterization to obtain the CVP value, then the CVP value must be updated every six months.

Will cardiac index need to be updated every 6 months?

A heart catheterization does not need to be performed every six months. But if the transplant program does perform a heart catheterization within the six month period, it must report updated values for those fields. Remember, if a right heart catheterization cannot be performed but the transplant program believes the candidate's LAS values should be different, the transplant program can submit an exception request to the Lung Review Board for an estimated cardiac index value.

If a candidate doesn't undergo cardiac catheterization, could leaving those fields blank decrease the lung allocation score?

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If there are no data for LAS factors obtained by cardiac catheterization, then policy-defined normal default values will be used to calculate the LAS. Upon implementation, the policy default values will be shown in policy in Table 10:1: Values Substituted for Missing or Expired Actual Values in Calculating the LAS. Alternatively, the transplant program can submit a request to the Lung Review Board for approval of estimated values for cardiac index and CVP.

In listing a lung transplant candidate I came across an issue with her cardiac cath. The cardiac cath does not have a cardiac output or cardiac index reported and in looking through our other electronic documentation I cannot calculate either using the Fick method because I do not have enough documentation from the day of the cath (ie: no labs reported so I don't have an MVO2 or Hemoglobin). I do have vital signs from the day of the cath including height, weight, and heart rate and I have an echo done about 1 month prior to the cath that reports an EDV and ESV.

Policy does not include a requirement for the method that must be used to obtain a candidate's cardiac output. If you are not able to obtain the information necessary to report the candidate's cardiac output, or if you do not have the information necessary to calculate the candidate's cardiac output or cardiac index from the same date, you may submit an exception request the Lung Review Board to request an estimated value.

Waitlist Measures

Will the measures (Waitlist urgency, etc.) be available to the reporting function within Waitlist?

The waitlist measure and the post-transplant survival measure were both will be added to the Custom Report, as well as to the Export Active Waiting List function.

How long is a patient predicted to survive with any given LAS? For an example, if the LAS is 85, does that mean that the patient will survive another 14 days? 21 days, etc.?

On February 19th, if you access the LAS Calculator and enter the candidate's values into the data fields you will see displayed at the bottom of the calculator the Waitlist Urgency Measure and Post-transplant Survival Measure. Those measures may give you some indication of predicted survival measures.

LAS 50 and Over Policy

Is there any plan to change policy 10 requiring every two week updates to the listings of anyone over LAS 50? There will be more patients requiring these frequent updates. Maybe the policy should require this with LAS > 60 or 70.

The Thoracic Committee will monitor the impact of the revisions to the LAS and look for trends that may warrant further policy revisions.

Serum Creatinine

I noticed that the LAS drops significantly when a serum creatinine value is missing or expired. Is that expected?

Serum creatinine has greater impact on the post-transplant survival measure in the new calculation than it does in the previous LAS calculation. That, in combination with the change in the revised policy default values (0.1 mg/dL in the waiting list model and 40 mg/dL in the post-transplant model) means that a missing/expired creatinine will result in a much greater decrease in the LAS than was seen in the previous LAS calculation.

Total Bilirubin

How old can the bilirubin value be?

You should consider reporting all the historic bilirubin values you have that are up to 18 months old, because upon implementation, these values may be calculated into the lung allocation score as part of the bilirubin threshold change calculation. You can learn more about the threshold change calculation by referencing *Policy 10.1.F.iii: Bilirubin in the LAS*.

What's the limit (how old) for historic values that can be entered for bilirubin? Is it 6 months?

There is no limit to how old the historic values can be when entered into the system, but submission of values older than 18 months will not impact the candidate's lung allocation score.

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When will UNet allow the bilirubin value to be entered?

You will be able to enter collected total bilirubin values beginning on February 19, 2015.

Will we need to update all of our currently waitlisted candidates with the total bilirubin?

We recommend reporting all current and historic bilirubin values for all of your currently waitlisted candidates on February 19, 2015. At implementation, bilirubin values will be included in the LAS calculation and current, as well as historic, bilirubin values may affect the candidate's LAS. Beginning on February 19, if the candidate's current bilirubin value is missing, expired, or less than 0.7 mg/dL, the calculation will substitute a value of 0.7 mg/dL for current bilirubin.

How does the addition of total bilirubin affect our currently listed candidates?

There is no way to know for sure how the addition of bilirubin is going to affect the prioritization of any given lung candidate, but we do know that all currently listed candidates will be affected by the addition of total bilirubin because it is a factor in all candidate's LAS calculations. Elevation of bilirubin is a marker for right heart failure, so we included it as a variable in the revised LAS to better account for the clinical condition of lung transplant candidates, particularly those in diagnosis group B, that are experiencing hemodynamic decompensation.

Do you advise us to check every candidate's "total bilirubin" before the implementation date?

Yes. Current bilirubin values will be incorporated into the LAS calculation on the date of implementation. Additionally, historic bilirubin can be reported, and older bilirubin values can have an effect on the candidate's LAS if the bilirubin values meet the criteria for "threshold change" beginning on February 19.

Will these candidates receive a default value/least beneficial value if the "total bilirubin" value is missing or outdated on the implementation date?

Yes, if the candidate's bilirubin value is missing, expired or below 0.7 mg/dL, the system will substitute 0.7 mg/dL for the bilirubin value.

Lung Diagnosis

Just to clarify, if the primary diagnosis of nonspecific interstitial pneumonia (NSIP), the appropriate diagnosis under the revised LAS system will be IIP:IPF, correct?

The current lung diagnosis description, "Idiopathic Pulmonary Fibrosis/Usual Interstitial Pneumonitis," has been renamed to "IIP: Idiopathic Pulmonary Fibrosis (IPF)", as part of the effort to update the available lung diagnoses. For candidates currently on the waiting list with a lung diagnosis of "Idiopathic Pulmonary Fibrosis/Usual Interstitial Pneumonitis" who had specified the IPF subset as "Desquamative Interstitial Pneumonitis (DIP)", the diagnosis will be updated to the new description of "IIP: Desquamative Interstitial Pneumonia".

Candidates with a diagnosis of "Idiopathic Pulmonary Fibrosis/Usual Interstitial Pneumonitis (UIP)" who specified the IPF subset as "Unknown" will be updated to the new description of "IIP: Idiopathic Pulmonary Fibrosis (IPF)."

How does this change affect exemption requests for pulmonary hypertension candidates as well as cystic fibrosis patients?

There will be no immediate effect on the exception requests transplant programs are permitted to submit on behalf of candidates with pulmonary hypertension. The Thoracic Committee will monitor the impact of the revised calculation to determine whether changes to the pulmonary hypertension exception are warranted in the future. The Thoracic Committee will also monitor the effects of the revised LAS to determine whether it has a disparate impact on any other candidates based on specific diagnoses, such as cystic fibrosis.

Is there any plan to update the diagnosis for patients in the midst of an acute exacerbation of UIP/IPF? Their O₂ requirements will usually drive their LAS but curious to see if any diagnosis changes are being considered?

The Thoracic Committee will monitor the impact of the revised LAS to determine whether any changes are warranted to any of the variables in the calculation, including diagnoses.

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Additional Resources

Where can I find more general education on LAS?

Resources such as brochures, a guide to calculate the lung allocation score and the evaluation plan, are available for patients and professionals on the OPTN and Transplant Pro websites.

Continuing Education

Is there a way for RNs to obtain CEUs for the Feb. 3 professional education session offered by UNOS?

We offer CEPTCs through ABTC. After viewing the training, please take the assessment to receive CEPTC credit. A CEPTC link is provided at the end of the program.

If you are not CEPTC certified can you still obtain CEUs?

When you take the evaluation, you can choose a CEPTC certificate or a certificate of completion.

System Training

LAS Revisions

So if we have a listed patient now....do we need to go in on the 19th and make the necessary changes?

In general, the new fields that will be available on the February 19, such as Total Bilirubin, if that data is not entered into those fields, the values for those fields will fall to the policy default value until that data is updated with correct values. The remaining fields will be there for you to update as you would during the normal 6 month cycle.

Are there still requirements for tests to be updated every 6 months, now that values just default?

Yes, this is still a requirement in policy for values to be updated. If data is not updated, policy defaults will take place, but those values may not be as beneficial to your candidates and in addition, you will have an added benefit of not having zero(0) value for those values that are missing or expired because they will default to policy default value.

How far back (time frame) are we able to review and enter data. 2 years? 5 years?

History page allows data to be entered that is not the most recent and you can add data to support and to collect a history to determine if there is a special change impact. There are an unlimited number of rows that we will continue to collect and display that shows history over time.

There seems to be some complexity to the policy around in determining threshold change, but at a high level, the rules require the high and low values that are being compared are within 6 months of one another. The high value being entered into UNet, needs to be a non-expired value which means it meets the expiration criteria based on the 6 month candidate's anniversary.

Historical values be added based on the policy and the business rules, 18 months back. It is probably the most valuable history from a starting point that you may want to enter to get your candidate's record up to date.

Right Cardiac Catheterization

What is the frequency required for entering CVP and Cardiac Index? Every 6 month?

Value updates should be done every 6 months, but if you obtain the values by way of the right heart catheterization, then update those values at the same time of the right heart catheterization procedure.

Sometimes we see the cath lab reports containing negative CVP (RA pressure) value, such as -1.

Will the new system allow us to enter the negative values or do we put in 0?

From a system perspective the revised system was not changed in terms of allowable values, so zero (0) is still the minimal value that can be entered into the system.

So if CVP was measured by advanced hemodynamic monitoring NOT RHC, can we use this to update LAS?

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Yes. The policy does not mandate that you use a right heart catheterization to obtain these values. The policy mandates that you obtain the values in the policy. So if you obtain CVP from another procedure other than a right heart catheterization, you absolutely can report those values.

Does the Right Heart Cath have to be retested every 6 months and updated in UNet?

No a Right Heart Catheterization is not necessary to be performed every 6 months. However, when a Right Heart Catheterization is performed that information need to be recorded in UNet.

Can you use CVP from echo?

Yes, because the CVP value is no longer tied to the heart catheterization test date.

If RHC not done but every 1-2 years does it need to be done more often? Is there a minimum time frame to repeat?

There is no minimal timeframe to repeat. However, when you perform a Right Heart Catheterization you want to report that new data.

Lung Diagnosis

Is there a new place to add dual diagnosis? (ex. COPD & IPF).

In Waitlist only one diagnosis can be entered, so enter the primary diagnosis.

How will the revised LAS algorithm affect the patients with Pulmonary Hypertension? And is there still a need for the exception criteria that we receive from UNOS?

The addition of Total Bilirubin to the LAS calculation as well as variables CVP and Cardiac Index, revisions were made to address some of the concerns for patients with Pulmonary Hypertension. Before, their scores may not have reflected their true clinical condition. In the revised system starting on February 19th, you may see a change in the LAS for the patients that have Pulmonary Hypertension that may be more reflective of those who have Right Heart Failure.

There will not be a change to that exception at the time of implementation. You may find that patients with Pulmonary Hypertension their scores may now reflect their clinical condition and as a result that exception may not be necessary.

Supplemental O₂

For the dropdown choices in the question: 'Requires Supplemental O₂', Is it possible that the patient might be administered some amount of supplemental O₂ at rest, but also a different amount of supplemental O₂ with exercise only? Are the choices exclusive of each other?

If the hospital selects "at rest," then the hospital should report the percentage of oxygen needed to maintain adequate oxygen saturation (88% or greater) at rest. If the candidate only needs oxygen during exercise or at night, then the hospital should choose the appropriate selection from the dropdown menu and report the percentage the candidate requires during exercise or at night. But if the candidate needs oxygen at rest, and either at night or during exercise, then the hospital should select "at rest" and report the percentage of oxygen needed at rest.

LAS +50

We read that there is new criteria for candidates w/ LAS >50.

That policy did not change with this current revision. Refer to Policy 10.1G for more information on LAS +50. Look for future documentation that provide tips to assist you with complying with that policy.

If a patient LAS is greater than 50 do we need to update them every 2 weeks?

Yes.

Exception Request

Candidate who is currently receiving exception score will not be affected by this revision for 6 months from the approval date, correct?

If your candidates currently have an exception score, the expiration of the exception request will not be affected by these policy revisions. So the timeline for those candidate will be the same as it is today.

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Total Bilirubin/Serum Creatinine/PCO₂

When updating the LAS variables for currently waitlisted patients, should we use all three lines for total bilirubin if we have that data currently?

Yes, we encourage you to enter all the history you have for that patient.

Could you briefly explain how the bilirubin and creatinine trends affect the LAS?

To see how creatinine and bilirubin values will affect each of your patients, we encourage you to use the LAS calculator starting on February 19th.

Don't you just need the highest and lowest values for total bilirubin?

No, because the system will determine which highest and lowest values are appropriate to use in the calculation. The high and low must meet certain other criteria, such as being within the right time frame of each other. Please see policy for all the nuances surrounding how the system selects the high and low value in the threshold change calculations.

For current PCO₂, Serum Creatinine or Total Bilirubin data, how will you convert time of test if we haven't entered time?

Wherever time was not entered into the new structure at implementation, 0000 will be entered into the time field at midnight of implementation.

Outside labs sometimes send blood gas results with only a date, no time. If the PCO₂ would raise the score or the new result would prevent expiring of this result, I would enter this result with a time of 00:00, in the best interest of the patient. Is this method correct to use for time?

"When adding the date and time for the values for PCO₂, total bilirubin and serum creatinine, the date and time refers to the date and time the sample was collected from the patient. If the time is not available, enter 00:00."