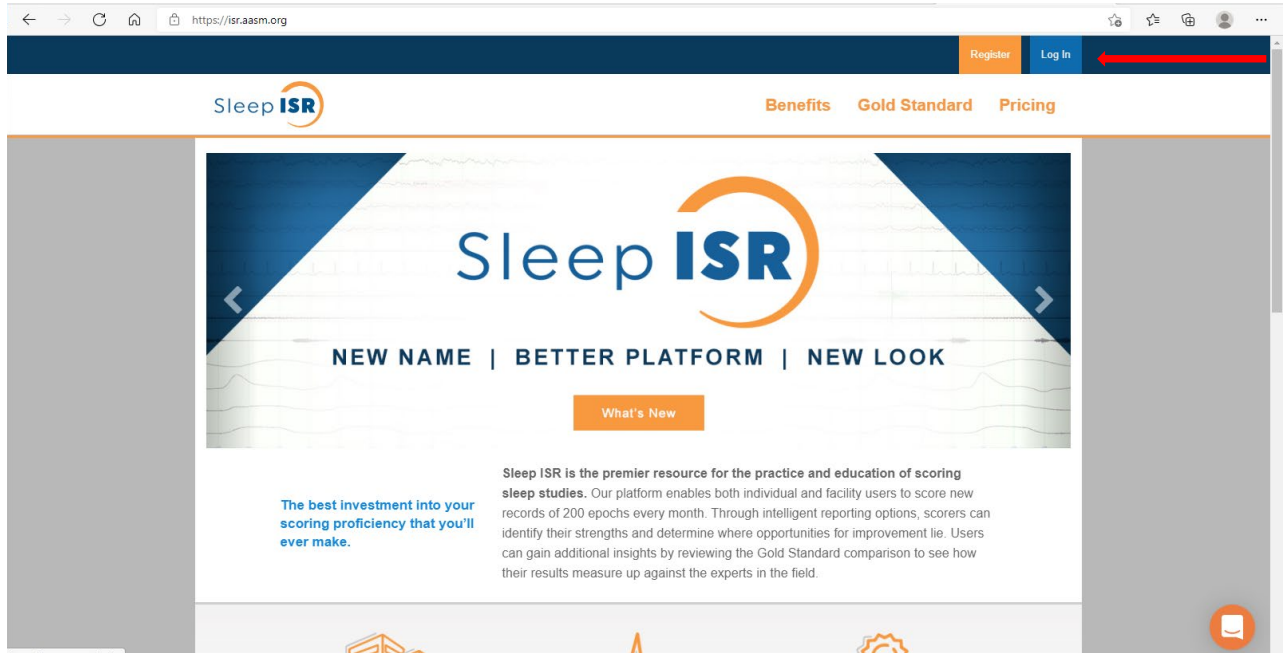
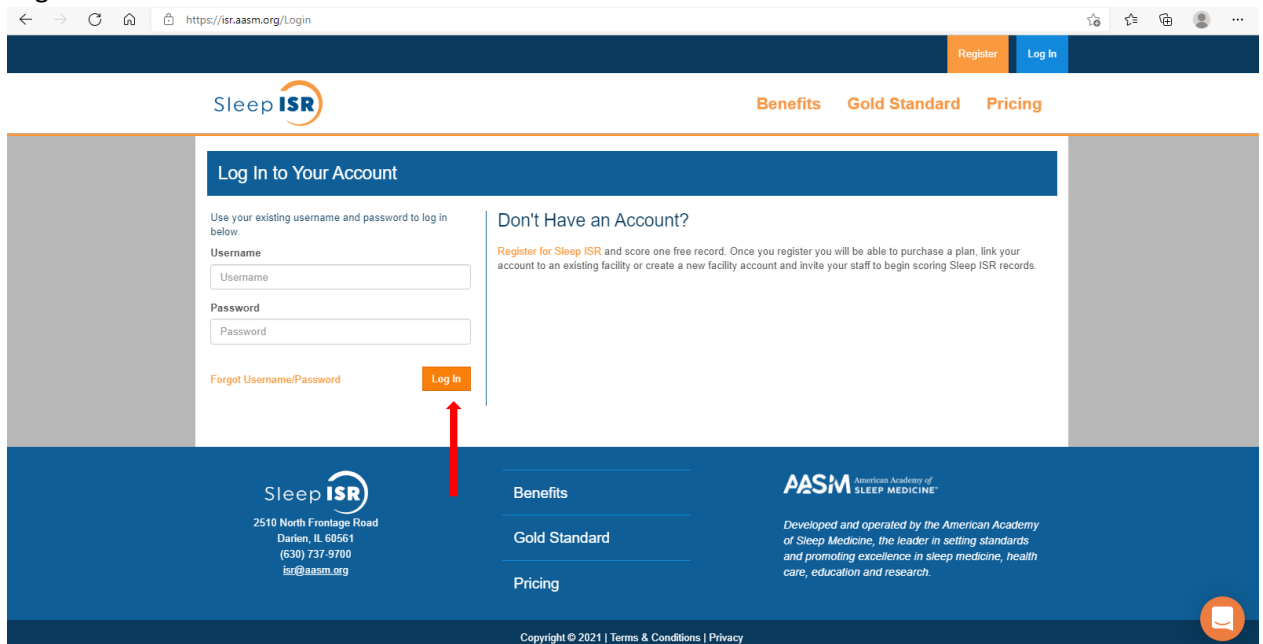


AASM ISR Instructions

- The first step is to get registered. You should have received an email on your Collin email with an invitation to register.
- Choose a username and password that you will **remember**. I am not able to reset your username or password for you.
- Anytime you need to login to AASM ISR, you can go directly to it by going to <https://isr.aasm.org>.
- Click on the Log In button at the top right.



- On the Log In to Your Account page, enter the Username and Password you created and click Log In.



- This will take you to the Scoring Dashboard. Here you will see all the studies that are available to be scored.

We detected you may have duplicate accounts. [Dismiss](#) [View Duplicates](#)

Scoring Dashboard

Record	Your Score	Global Average	Difficulty	Claim CE
SLEEP 2021 45 F CPAP Bonus Record (Score Until 8/31/2021)	Not Taken	78.80 %	5 / 5	Unavailable
July 2021 47 F Diagnostic Record Review Available On 8/1/2021	Not Taken	87.99 %	5 / 5	Coming Soon
June 2021 56 F Diagnostic Score Until 5/31/2022	Not Taken	93.06 %	3 / 5	Claim
May 2021 35 F Diagnostic Score Until 4/30/2022	Not Taken	93.37 %	2 / 5	Claim
April 2021 42 F Diagnostic Score Until 3/31/2022	Not Taken	93.97 %	3 / 5	Unavailable
March 2021 37 M CPAP Score Until 2/28/2022	Not Taken	92.90 %	2 / 5	Unavailable
February 2021 32 M Diagnostic Score Until 1/31/2022	Not Taken	91.23 %	3 / 5	Unavailable
January 2021 79 F Diagnostic Score Until 12/31/2021	Not Taken	84.74 %	5 / 5	Unavailable
December 2020 41 M Diagnostic Score Until 11/30/2021	Not Taken	93.01 %	2 / 5	Unavailable

- Select the study assigned for the week to complete. You will see its difficulty level in the 4th column. The lower the number, the “easier” the study was to score. The higher the number, the more difficult it is to score. A dropdown box will occur with a description of the record. It will state which rule set to follow when scoring the record—be it the acceptable rule or the recommended rule. In the case of this example, it is the recommended rule. Click Score Record to begin scoring the study.

When scoring this record, you will use the rules from the AASM Manual for Scoring of Sleep and Associated Events to score a record consisting of 200 consecutive epochs. You will be able to score this record exactly once while it is available. Your progress will be saved each time you mark the record. You may leave and resume scoring the record at any point within the record availability dates.

When you are finished, select “Exit” at the bottom of your screen and check “Yes” to submit your work. Your results are based on how your work compares to the AASM Gold Standard Scorer. You will have the opportunity to see how your score for each epoch compares to the AASM Gold Standard Scorer.

Score this record using the recommended rule.
Once started, you will have -143 days to complete scoring this record.

[Score Record](#)

- Once you click Score Record, a screen will pop up with Instructions for Scoring Using ISR. Read these instructions thoroughly as this information is essential for scoring the ISR study. You need to know how to select sleep stages, respiratory events, limb movements, and arousals as well as how to navigate between 30-second and 120-second views. I have also included a document of these instructions in this module. Click the Start Scoring Record button when you have finished reading the instructions.

Sleep ISR

START SCORING RECORD

Instructions for Scoring Using Sleep ISR

Use the rules from the AASM Manual for the Scoring of Sleep and Associated Events to score all 200 epochs. This program uses actual record samples from patients and research subjects. Each exam consists of 200 consecutive 30-second epochs from a single recording.

The montage used in each of these epochs is the standard from the Manual. There are three EEG channels, two standard EOG channels, chin EMG and EKG. Snoring is recorded from a microphone. Left and right leg EMG channels are provided. There are 2 flow channels: an oral-nasal thermal signal (which may be identified as Flow or Thermal) and a nasal pressure signal (which may be identified as Pressure or PTAF). Separate chest and abdominal respiratory inductance plethysmography channels are shown. The bottom tracing is oxygen saturation with numerical readings.

EPOCH DURATION: Use the Space Bar or right click and select an epoch duration from the scoring menu to toggle the duration of the record that appears in your window. The default 30-second view allows you to closely examine a single epoch and is useful for scoring sleep stages and arousals. The alternative 120-second view provides a look at four continuous epochs. This view is ideal for scoring respiratory and limb movement events. **In the 120-second view you will only score the epoch that appears in a red box.** Extra epochs will appear at the beginning and end of the records, you cannot score these epochs.

STAGE SCORING: Choose 1 stage for each epoch: W, N1, N2, N3 or R. **If you mark an epoch as W, do not score any respiratory events or limb movements for that epoch.**

There are three ways to score each stage:

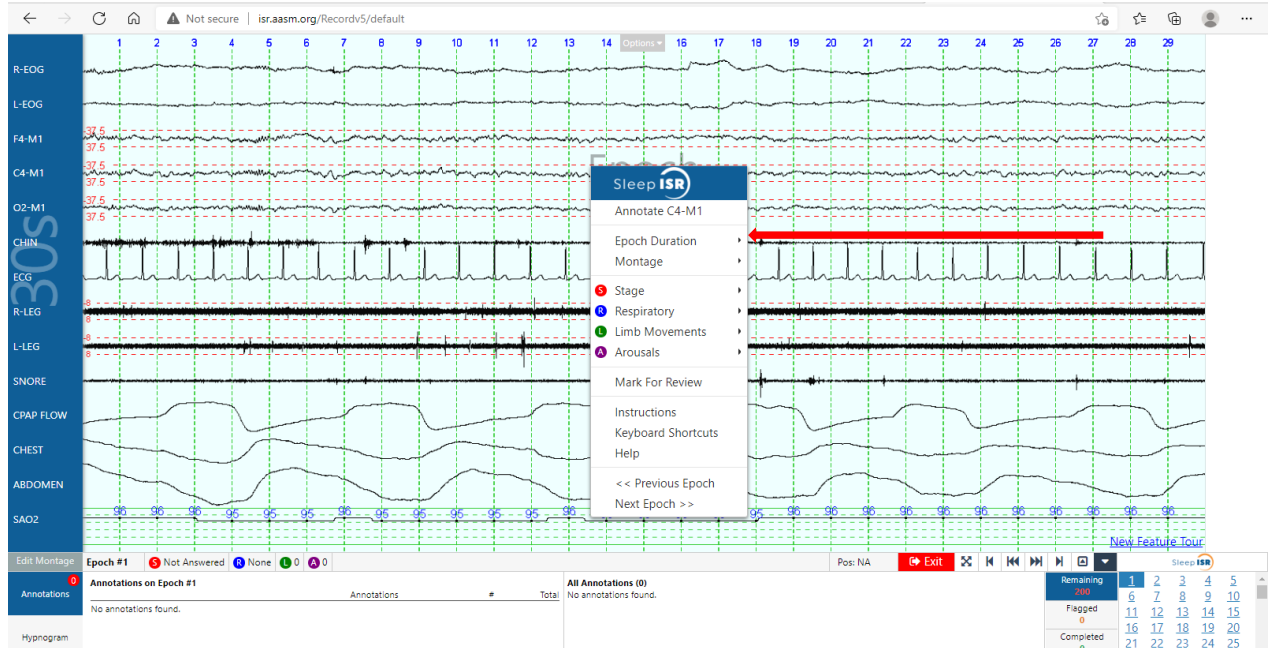
- Use the numerical keypad on the right side of your keyboard to mark your stage and automatically advance epochs. This is ideal for "two-pass" or "multi-pass" scoring. Use 0 for stage W, 1 for stage N1 sleep, 2 for stage N2 sleep, 3 for stage N3 sleep and 5 for stage R sleep.
- Use the numerical keys at the top of the keyboard for "single-pass" scoring. The epoch will not advance when you mark your stage.
- Open the scoring menu by right-clicking the mouse (you can change this command to left-click in the "Settings" menu). Under "Stage", left-click your stage selection to score the epoch.

RESPIRATORY SCORING: **Score any event that appears in an epoch, even if the event appears across multiple epochs, and only a portion of the event occurs in the current epoch.** For example, if an obstructive apnea starts in epoch 97 and ends in epoch 98, score obstructive apnea for both epochs 97 and 98. If there is an obstructive apnea and a central apnea in epoch 125,

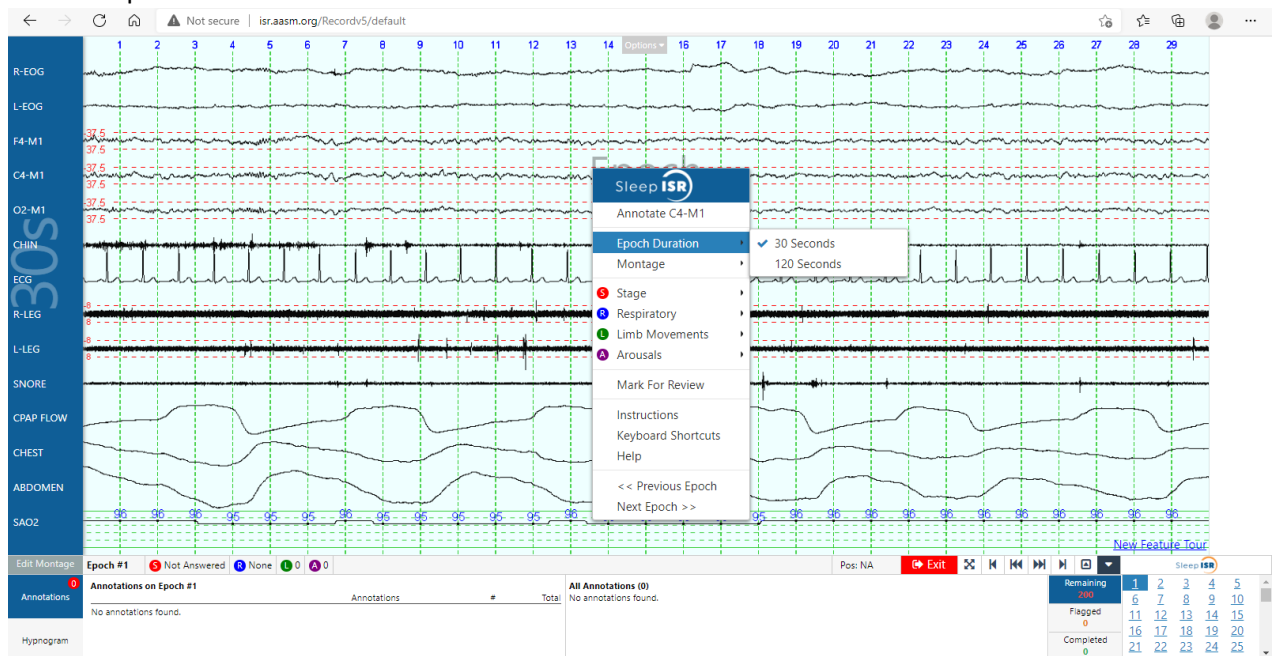
- When the record opens, there will be a pop-up box with information about the patient and the study. Read through this as it can provide you with helpful information that you can use to make decisions in your scoring. When you are finished reading the patient and study information, click the Close button.

Record:
September 2020 46 M CPAP
Hypopnea Scoring Rule Used:
Recommended rule
Score hypopnea when there is at least a 30% reduction in the amplitude of the nasal pressure signal or PAP flow signal that lasts for 10 seconds or more and is accompanied by a $\geq 3\%$ oxygen desaturation or the event is associated with an arousal. Events that meet criteria for apnea and hypopnea should be scored as apneas.
Notes:
46 yo male undergoing a CPAP titration study following diagnosis of OSA (AHI 17). Medical history: hyperlipidemia, migraine headaches, RLS, chronic neck and shoulder pain, GERD, allergic rhinitis, and vitamin D deficiency.
Current medications include: ibuprofen, vitamin D3, topiramate, atorvastatin, Flonase, fexofenadine, bupropion, citalopram, and magnesium oxide. No sleep aid used.
HT: 69 in. WT: 193 lb. BMI: 28.5 Neck circ: 41.5 cm. ESS 7/24
Close

- The next step is to start scoring your study following the instructions provided. First step is to figure out where to start. An ISR study is 200 epochs of a sleep study and typically does not start at the beginning of a sleep study. So you first need to determine what stage the epoch previous to the start of the ISR study was. To do this, right click on your mouse and you will see a menu like this pop up.



- Scroll to Epoch Duration and select 120 seconds.

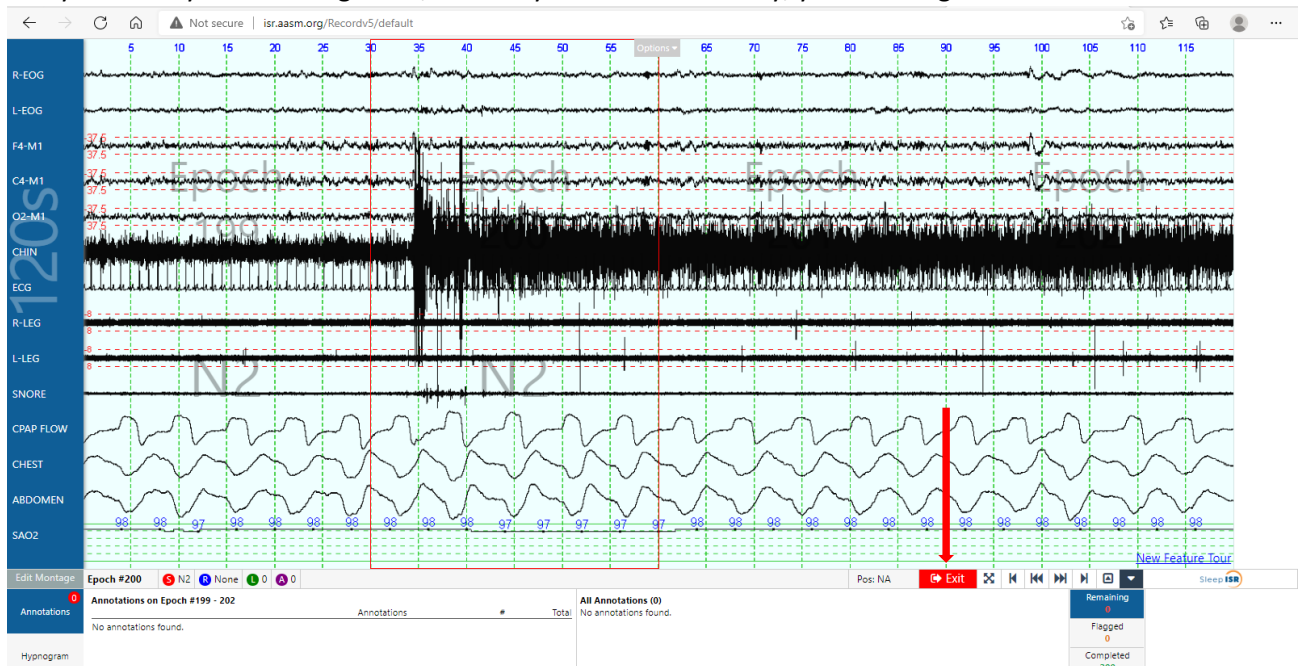


- This will bring up the two-minute view of your sleep study. On the left you should see an epoch watermarked as Epoch 0. In this case, Epoch 0 is watermarked as being Stage N1. So you should use Stage N1 as your reference point for scoring Epoch 1 and going forward in the study.

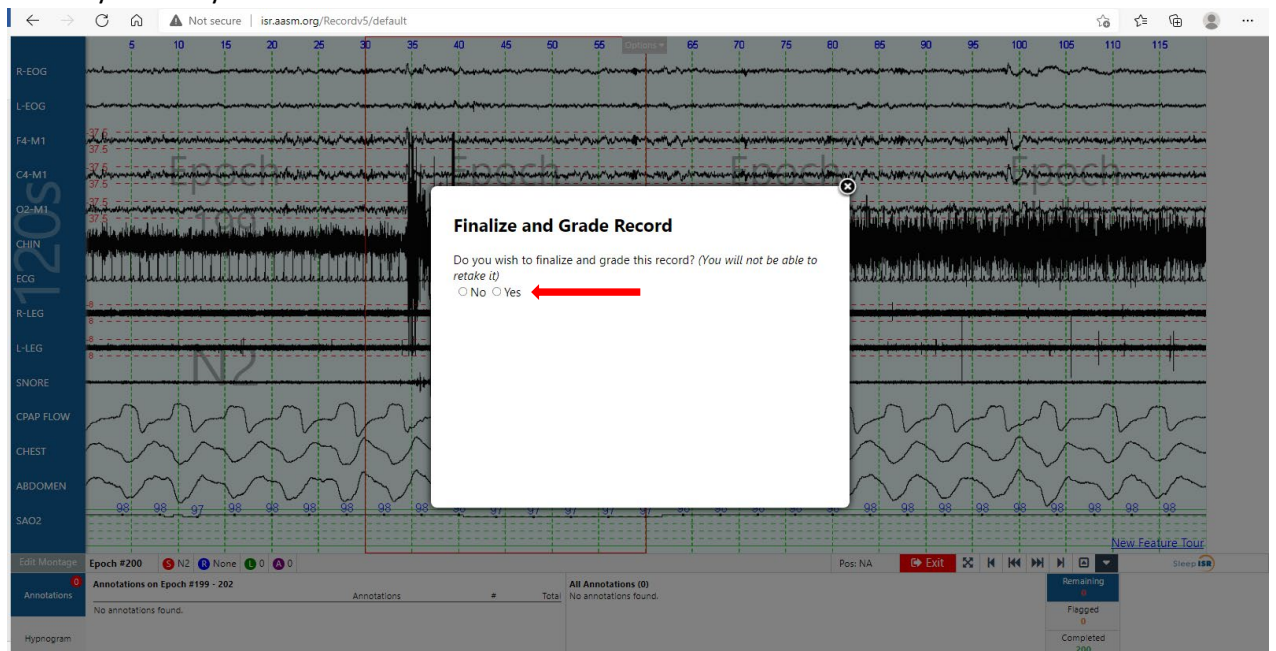


- Switch back to the 30-second view by right clicking, scrolling to Epoch Duration, and clicking 30 seconds. Assign a sleep stage to all 200 epochs and mark arousals in the 30-second view. Once you get to Epoch 200 and finish assigning it a sleep stage and mark any arousals, it will roll you back to Epoch 1. At this point, switch to the 120-second view by right clicking, scrolling to Epoch Duration, and clicking 120 seconds. On the 120-second view, you will mark respiratory events and limb movements by following the Instructions for Scoring Using Sleep ISR document.
- For respiratory events, keep in mind you will mark them in every epoch they occur in. So if they start in one epoch and finish in another, you have to mark both epochs as having had that respiratory event.

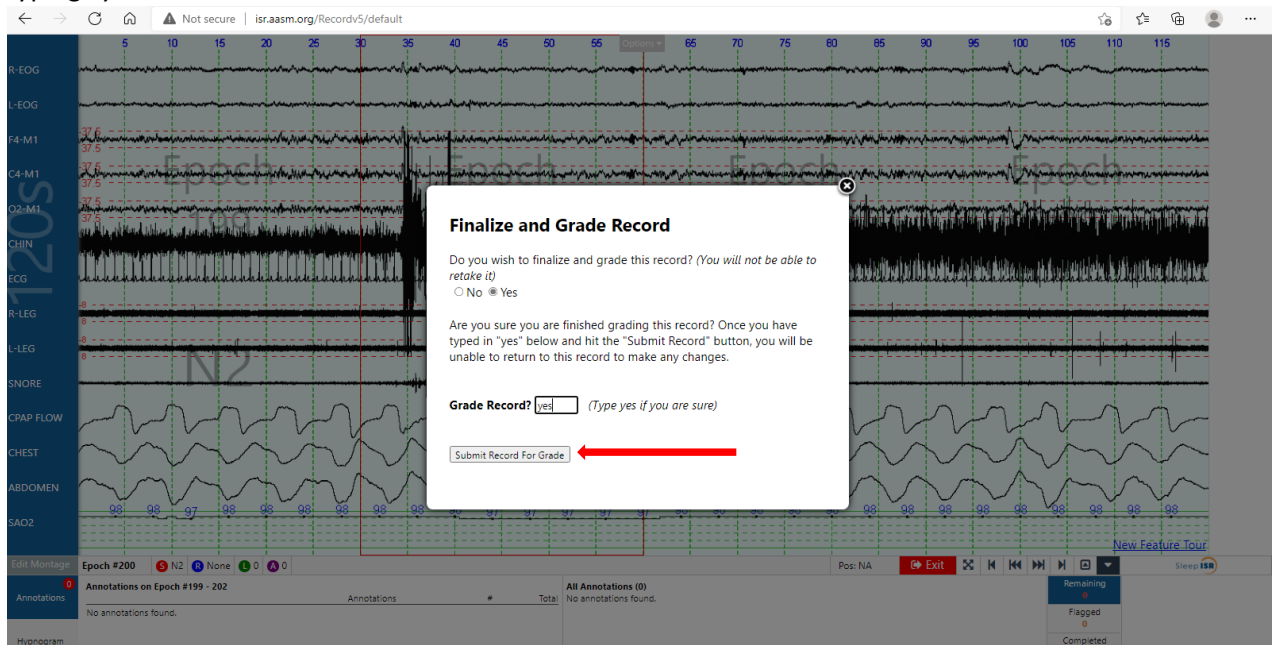
- When you are finished with a study and feel confident in your scoring to submit it for a grade, click on the red Exit button at the bottom. Only click this when you are 100% done with your study and ready for it to be graded, as once you submit the study, you cannot go back.



- A pop-up box will appear asking you if you wish to finalize and grade this record. Select Yes to submit your study.



- When you click Yes, a box will pop up below this asking if you are sure you are finished grading this record. In this box you must type “yes” to submit it. Click Submit Record for Grade after typing “yes” in the box.



- Once you click Submit Record for Grade, you will be taken back to the Scoring Dashboard screen where you can see your score and how you compared to the Global Average. If you click on the study, you can see your overall score, your staging score, your respiratory score, your limb movements score, and your arousals score. By clicking the Gold Standard Comparison, you can see what you missed in comparison to the physician/panel who served as the Gold Standard for the study.



- The Gold Standard Report will list all the epochs where there were disagreements between you and the Gold Standard. You can click on each of the hyperlinked epochs to take you directly to that epoch. There will be a bar with the Gold Standard's scoring and your scoring below it. You can also see below that the scoring community's overall agreement with the Gold Standard scorer and where the major disagreement was. In this example, only 21.52% of those who scored this epoch were in full agreement with the Gold Standard, and the major disagreement is in staging.



- Also, in the previous example, you can see a black box with a play button. This is where you will find the video that you are to watch for each study that you will be required to discuss in each week's discussion. These videos explain areas that were tricky for the Gold Standard panel to reach consensus on, and they give insight into why the panel scored things the way they did. They are very helpful for honing your scoring.
- If you have any questions, each week there is a discussion post each week where you can list the epochs you have questions about and what your question(s) is/are about the epochs. I have found this helpful to do this in an open forum because sometimes several students will have the same question(s) about the same epoch(s).
- Scoring comes with practice. It can be easy to get discouraged when you are first starting, but the more you practice, the easier it comes. Be patient, take your time, know the scoring rules and what to look for, and understand what is expected by the ISR software by reading the instructions.