MPOG
MULTICENTER PERIOPERATIVE OUTCOMES GROUP

Module 7
Case Validation

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Case Validation Overview

- Case validation is used along with Data Diagnostics (Module 6) to ensure data accuracy
- Ensures that the data extracted into MPOG matches the original EHR documentation utilizing the MPOG Case Validation application
- Allows for detection of data issues at an individual case level that may not be visible using data diagnostics
- Series of standard questions are used to validate case information

Case Validation Overview

- A variety of cases should be sampled
  - For example, if your institution has cardiac surgery, orthopedic surgery, obstetrics/gynecologic surgery, vascular surgery, and transplant surgery, then you should review a case for every service
- Emergent cases should be validated as the data for an emergent case may not always extract in the same way a scheduled case does.
- After a few months, you may see trends in issues with mapping.

Case Validation Overview

- Based upon initial review and with help from an MPOG QI Coordinator, you will decide how to select future cases for review.
- For example, you may find that there is a trend in issues with mapping for cardiac procedures. In this case, you will want to place emphasis on reviewing cardiac cases for a few months until the data issue is resolved.

Requirements

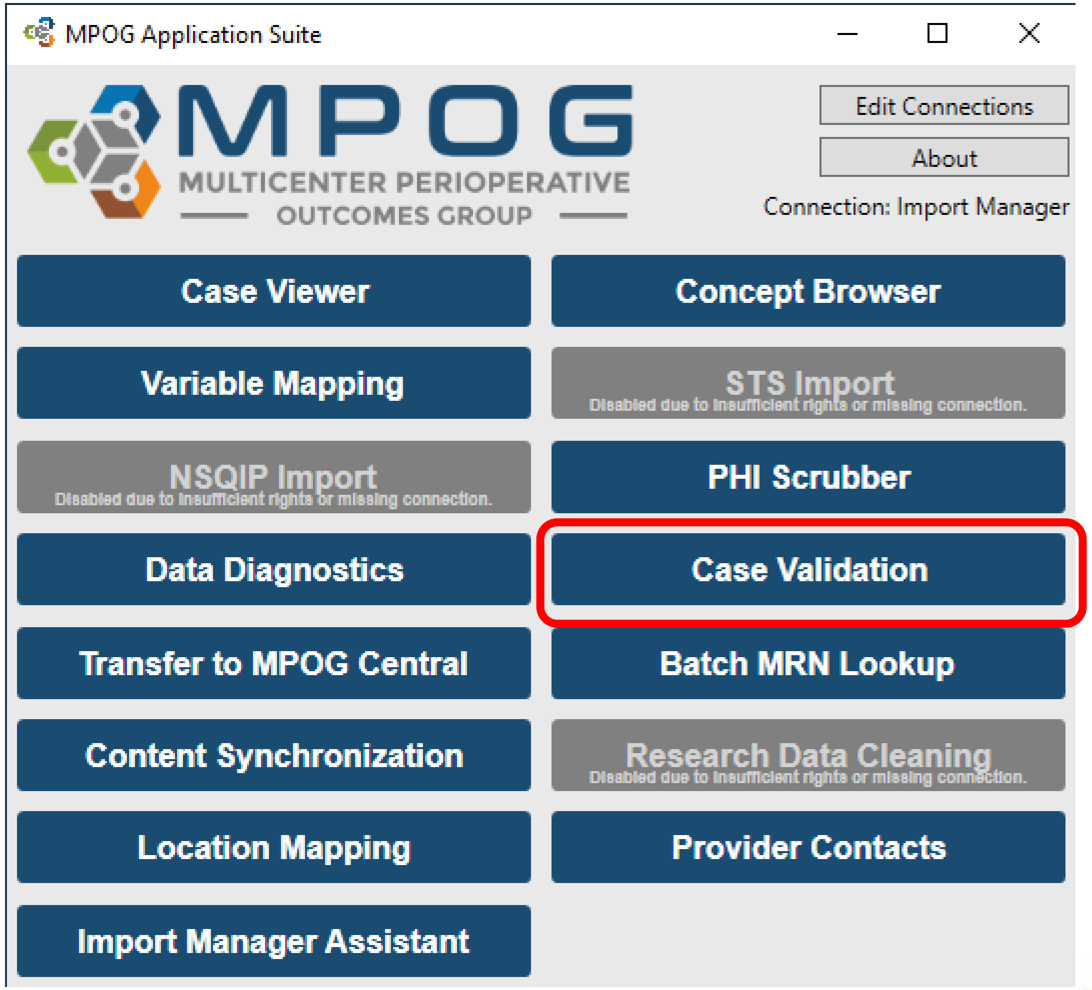
BCBS Funded sites

- MPOG requires review of 10 cases per month for at least 6 months prior to initial MPOG Central upload
- All historical data should be validated with a minimum of 5 case validations completed per month.
- Required to validate 10 cases per month prior to uploading to MPOG central each month

Non-funded sites

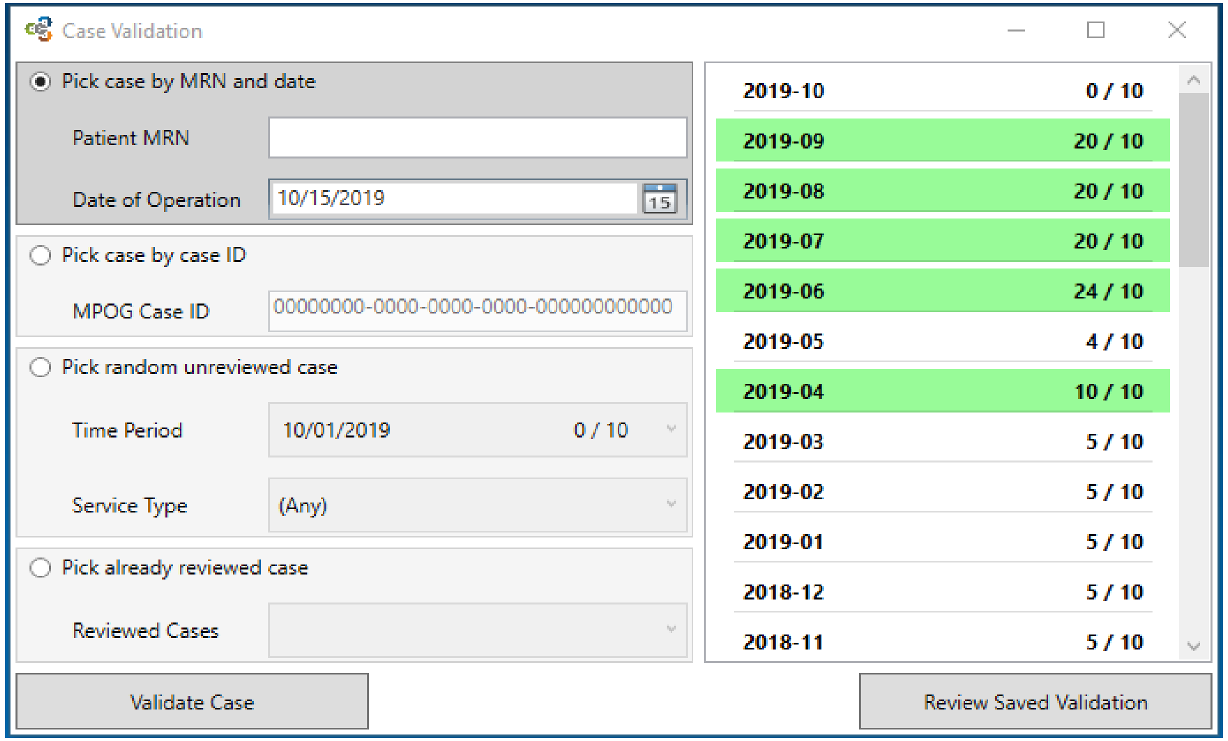
- MPOG requires review of 5 cases per month for 6 months before initial upload.
- All historical data should be validated with a minimum of 5 case validations completed per month but can be completed after initial upload if Data Diagnostics are accurate throughout.
- Required to validate 5 cases per month prior to each upload to MPOG Central

Accessing Case Validation



Case Validation App

- The left side of window displays 4 options for how you can select and open a case.
- The right side of the window displays the number of cases that have been reviewed historically for each month.
- Green indicates that the required number of cases per month have been reviewed.

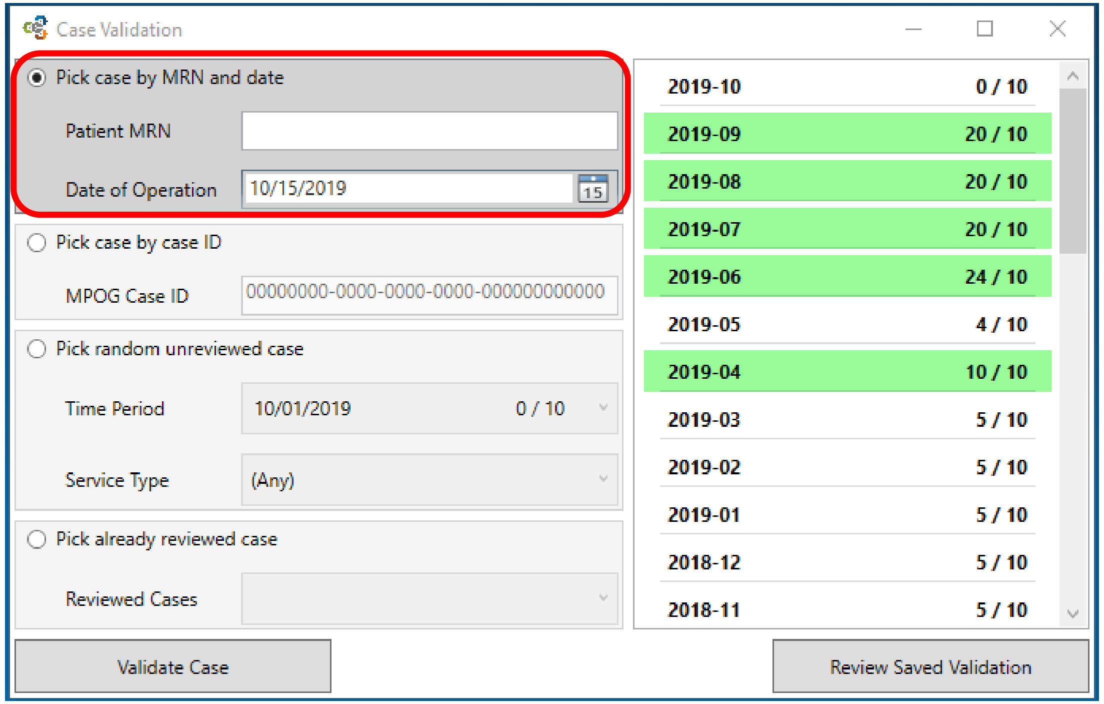


Pick a Case for Review

- 4 Options
  - Pick case by MRN and date
  - Pick case by case ID
  - Pick random unreviewed case
  - Pick already reviewed case

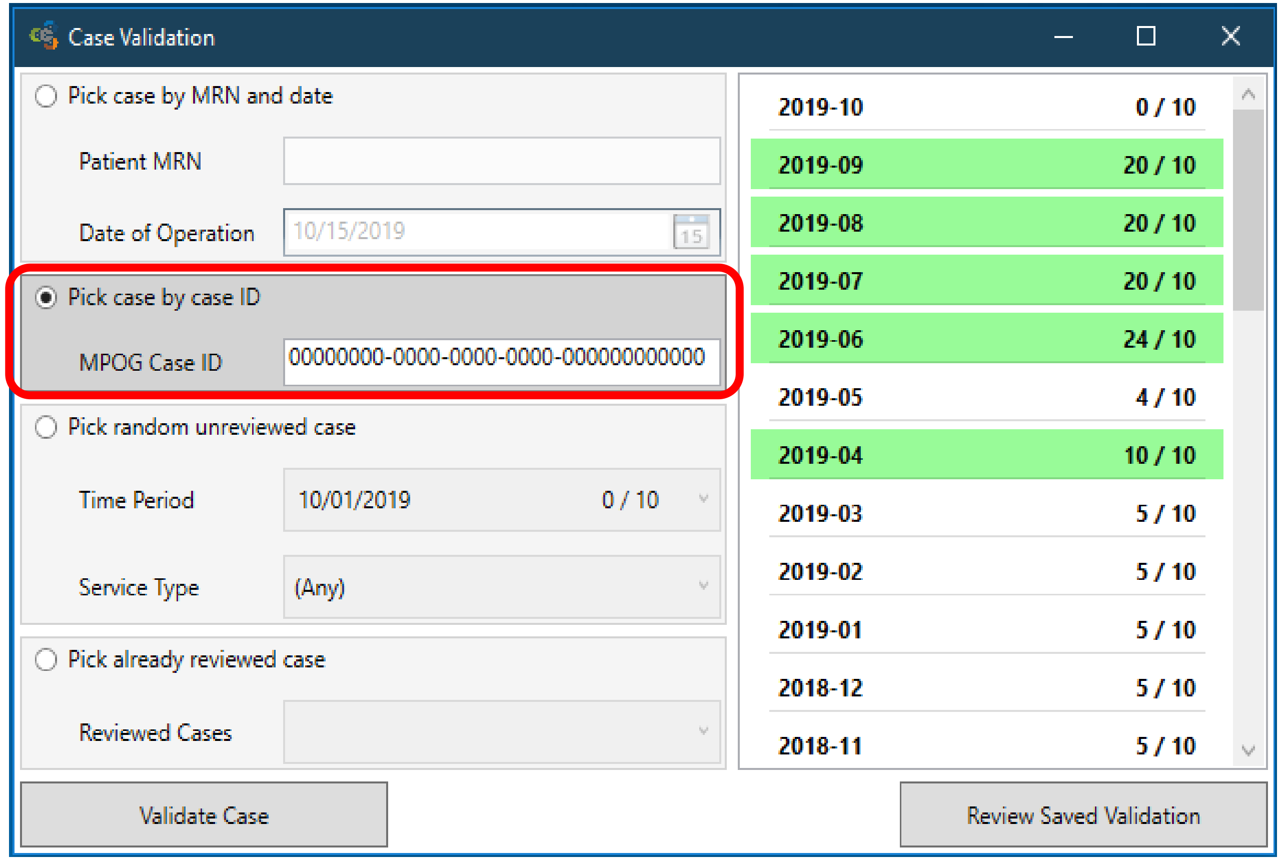
Pick a Case for Review: Select by MRN and Date

- Click the dial next to “Pick case by MRN and date.” Both MRN and Date of Operation are required for this type of case selection method. Click “Validate Case”
- The Case Validation screen should display. You would typically verify that the patient MRN & Date of Operation are the same as the case you were initially trying to select and then begin case validation.



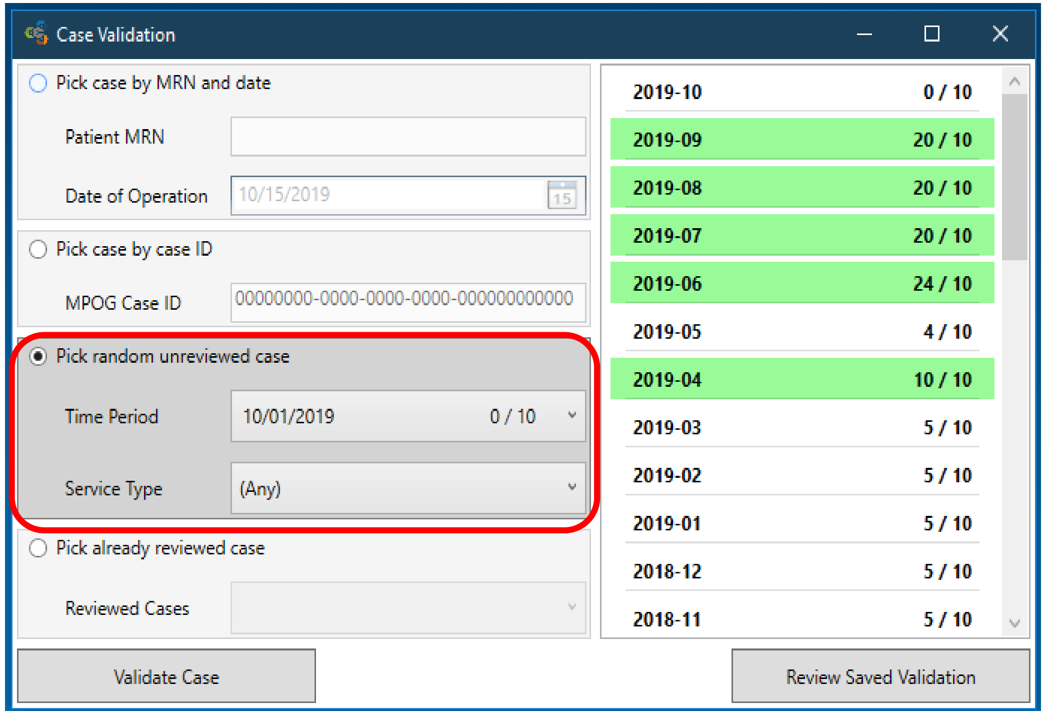
Pick a Case for Review: Select by Case ID

- Click the dial next to "Pick case by case ID." Enter MPOG Case ID. Click "Verify Case"
- The Case Validation screen should display. Typically, you would verify that the MPOG Case ID is the same as the case you were initially trying to select and then begin case validation.



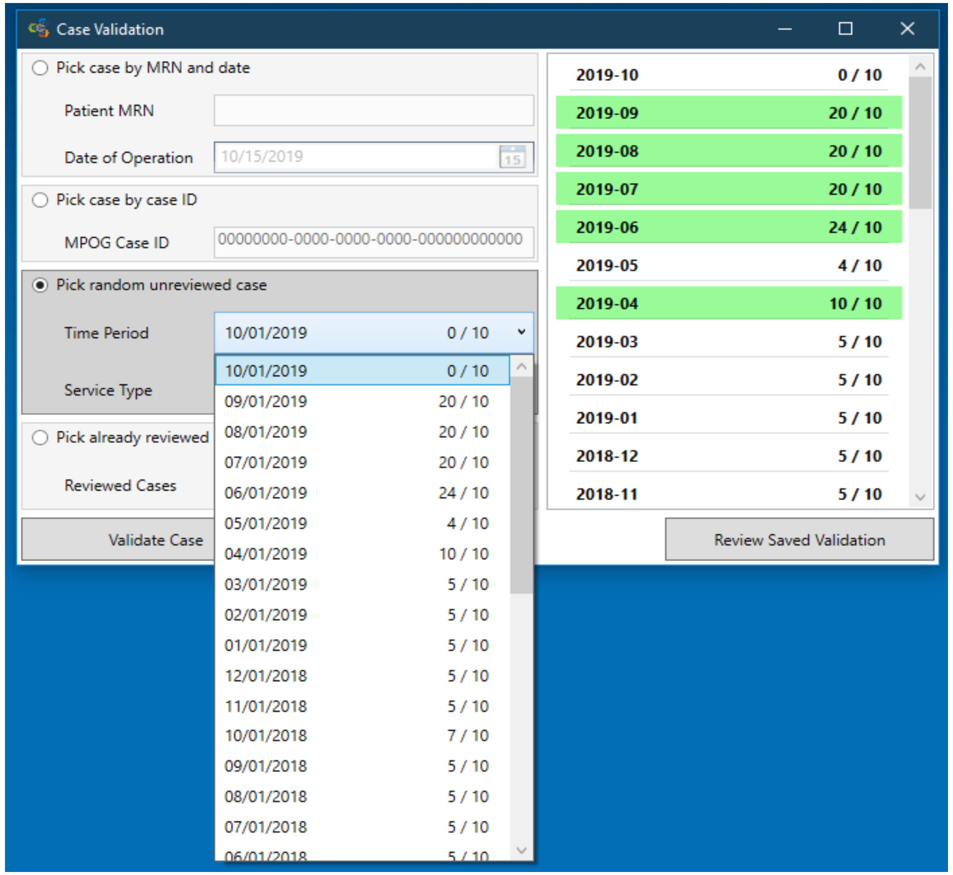
Pick random unreviewed case

- Click the dial next to “Pick random unreviewed case.”



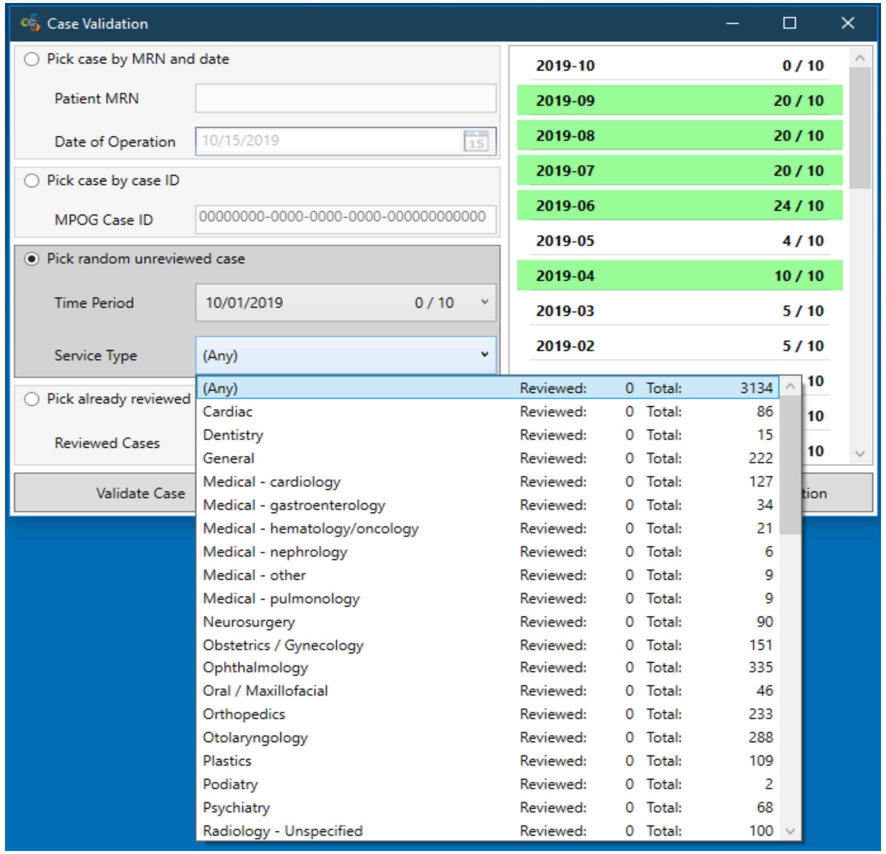
Pick random unreviewed case

- Choose the date range



Pick random un-reviewed case

- Select a surgical service from the dropdown menu (optional)
- Select “Validate Case” at the bottom of the screen



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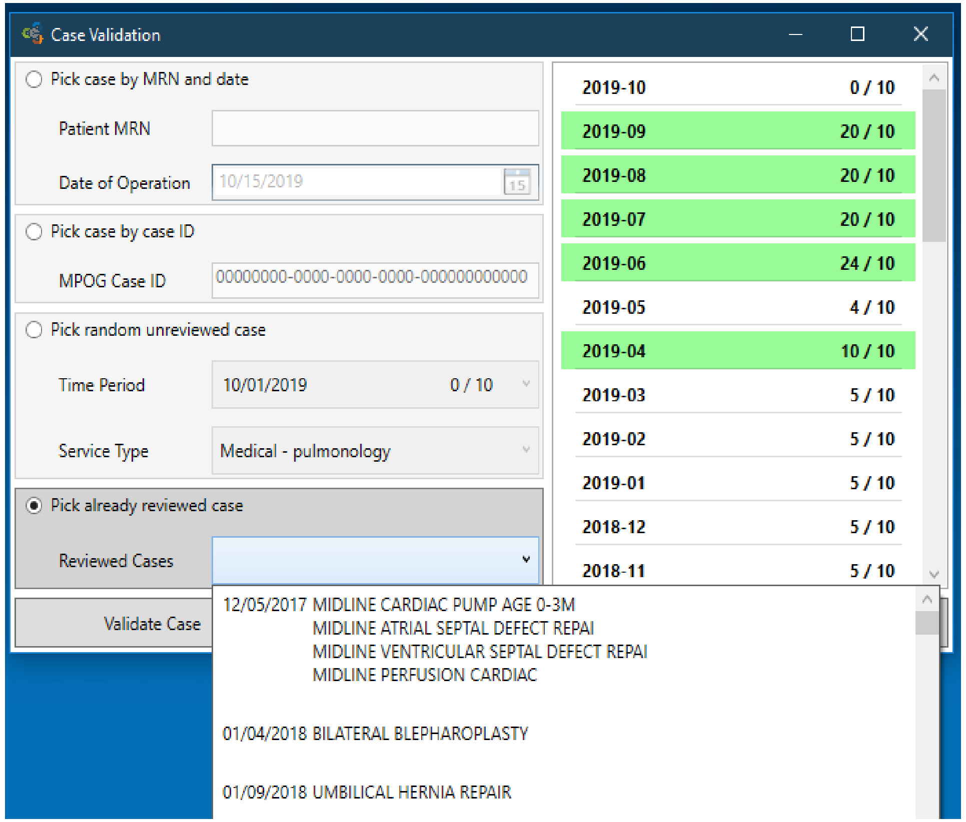
Pick a Case for Review: Picking an Already Reviewed Case

- Click the dial next to “Pick an already reviewed case.”
- Select a case from the dropdown menu. The date of operation and procedure type will display.
- Select “Validate Case” at the bottom of the screen.
- The Case Validation screen should display. At this point, you would verify that the case selected matches the case type that displays in the validator and begin case validation.



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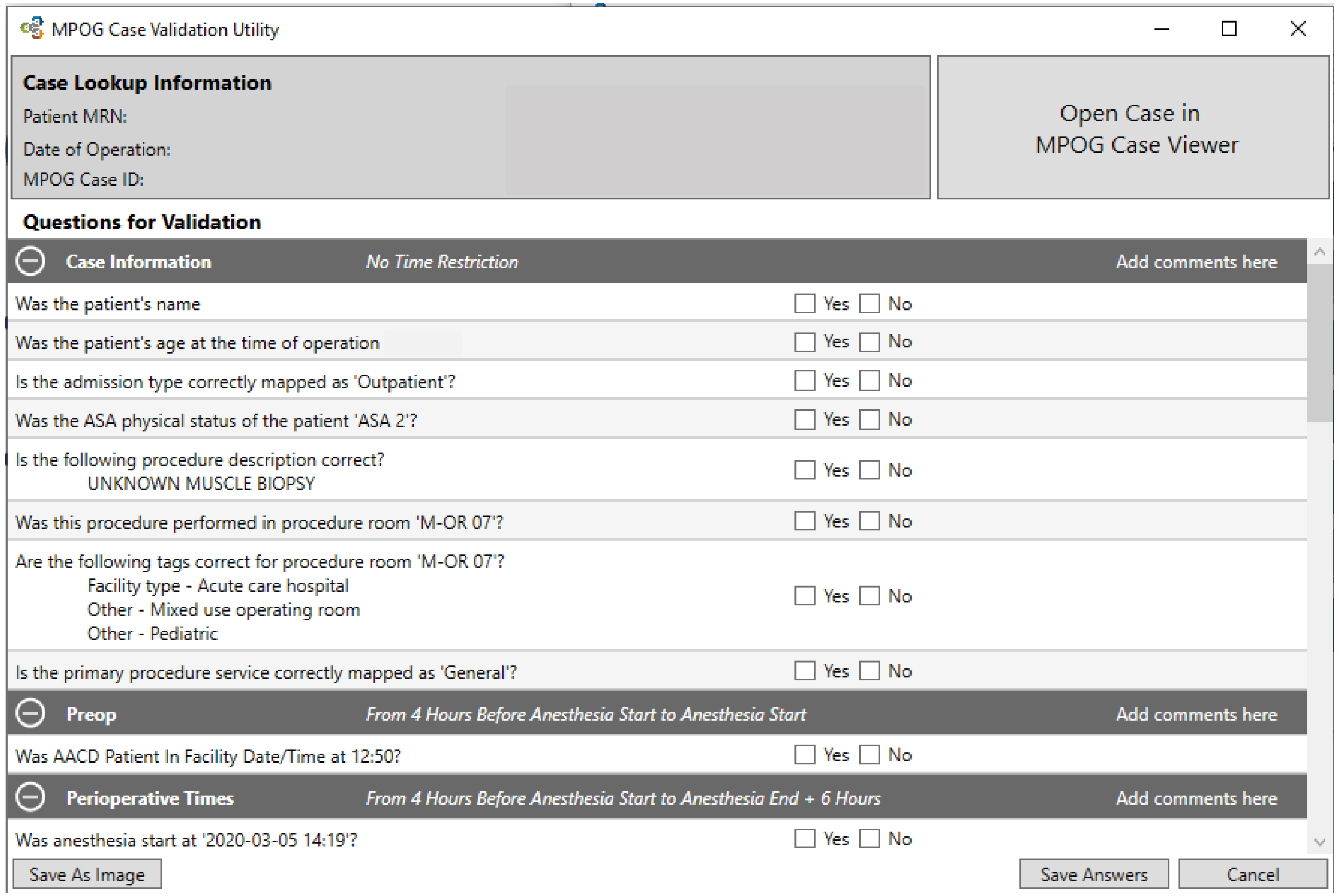
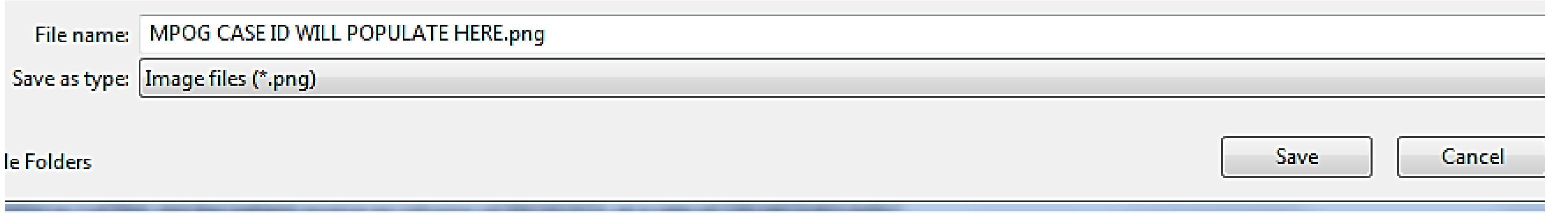
Case Validation

- Select a case using one of the previously described options
- The Case Validation questionnaire will display. For the purpose of this training exercise, the PHI was removed.



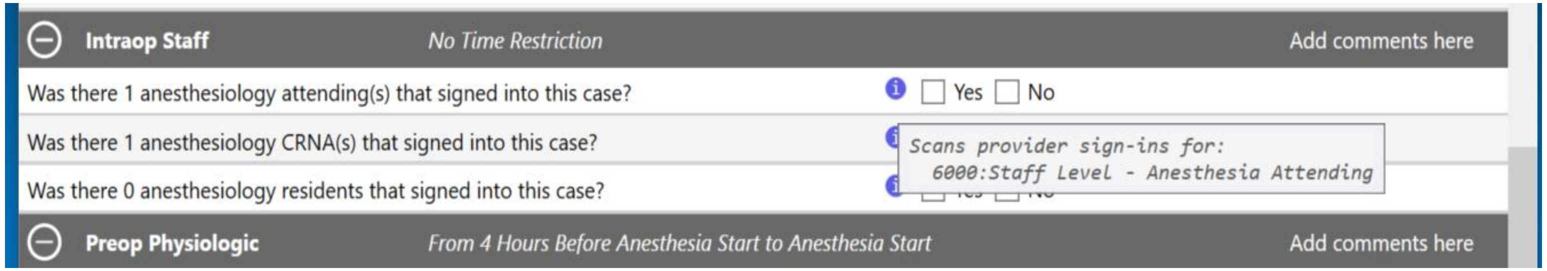
Case Validation

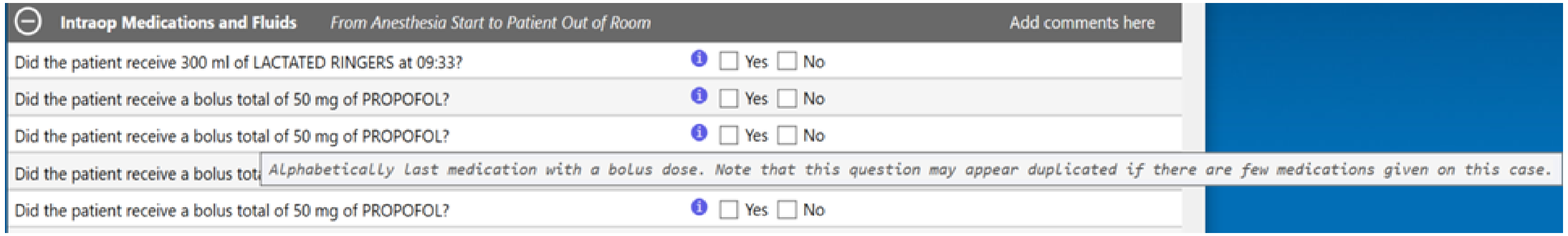
- You must answer every question with ‘yes’ or ‘no’ unless there is no data in which case the row for the question is highlighted in red.
- Compare questions against EHR. Please add comments as needed to explain any discrepancies.
- For issues that need follow- up from the site technical team or coordinating center, the “Save As Image” button is available to save a screenshot of the case. **PHI will automatically be eliminated from the screenshot.**
- A window will display asking you to save the image. The MPOG Case ID will automatically populate the File Name. Choose a file location where you will be able to access again. Click ‘Save



Case Validation

- Tooltips are available by hovering over the “(i)”. Tooltips provide more information regarding which concepts the question uses





Case Validation

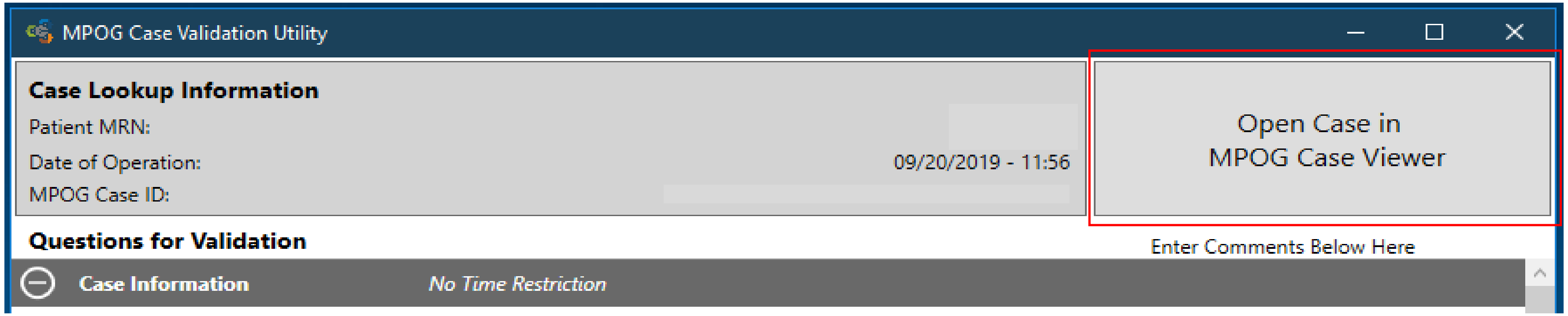
- May need 3-4 programs open at a time to verify the data in the MPOG case validator "matches" the information present in the hospital Anesthesia Information Management System (AIMS)
- It is recommended reviewers have 2 monitors/screens available for use
- Most likely will need intra-op record open on one screen and the MPOG case validator on the other
- The source of truth varies per institution depending on the electronic documenting system

Case Validation

- For example: At the University of Michigan Health System, multiple systems are used for case validation:
  - Centricity contains the Intra-op record, Anesthesia H&P, Case details.
  - Epic: Inpatient record, used for validation preop medications and admission status
  - Carelink: Previous EHR used for validating cases pre-dating Epic implementation.

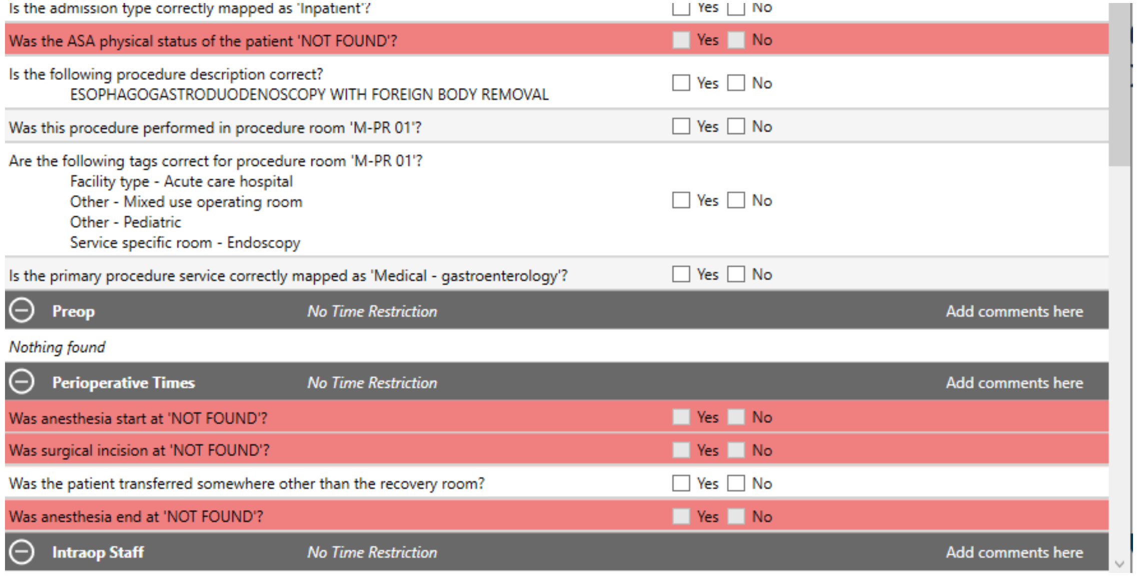
Case Validation

- It may be useful to open the Case Viewer within the MPOG Suite to assist in the case review.
- To access from the Case Validation Utility screen, click on the 'Open Case in MPOG Case Viewer' tab at the top right hand of the screen. For further details on the Case Viewer, refer to Module 5



Case Validation

- If a case is missing information in the MPOG database for any reason, the case validator will highlight the row for that question in red and will not gray out the yes/no checkboxes.
- If multiple cases seem to be missing the same type of data, note the MPOG case IDs. This can indicate an extract issue or a documentation issue- discuss with the MPOG QI Coordinator to identify next steps. See example below.



Is the admission type correctly mapped as 'Inpatient'?	Yes No
Was the ASA physical status of the patient 'NOT FOUND'?	Yes No
Is the following procedure description correct? ESOPHAGOGASTRODUODENOSCOPY WITH FOREIGN BODY REMOVAL	Yes No
Was this procedure performed in procedure room 'M-PR 01'?	Yes No
Are the following tags correct for procedure room 'M-PR 01'? Facility type - Acute care hospital Other - Mixed use operating room Other - Pediatric Service specific room - Endoscopy	Yes No
Is the primary procedure service correctly mapped as 'Medical - gastroenterology'?	Yes No
Preop *No Time Restriction*	Add comments here
Nothing found	
Perioperative Times *No Time Restriction*	Add comments here
Was anesthesia start at 'NOT FOUND'?	Yes No
Was surgical incision at 'NOT FOUND'?	Yes No
Was the patient transferred somewhere other than the recovery room?	Yes No
Was anesthesia end at 'NOT FOUND'?	Yes No
Intraop Staff *No Time Restriction*	Add comments here

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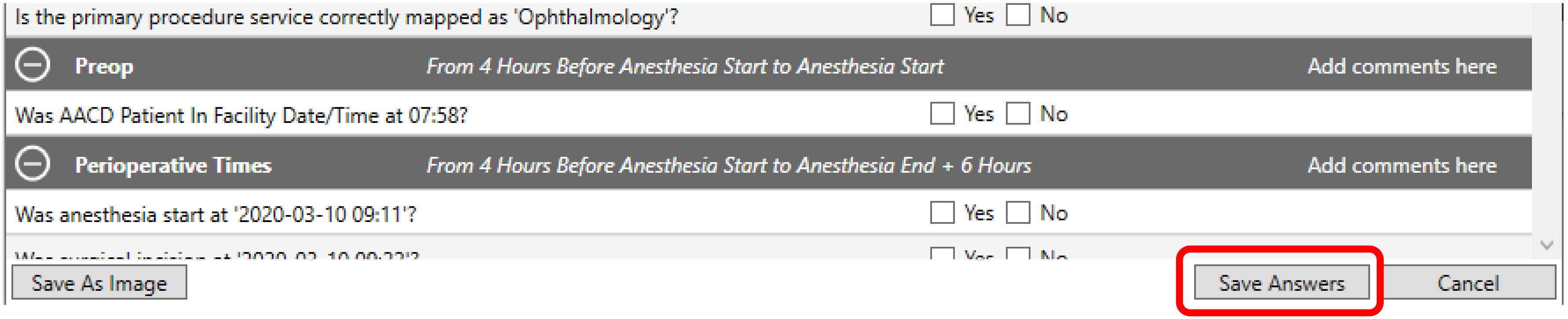
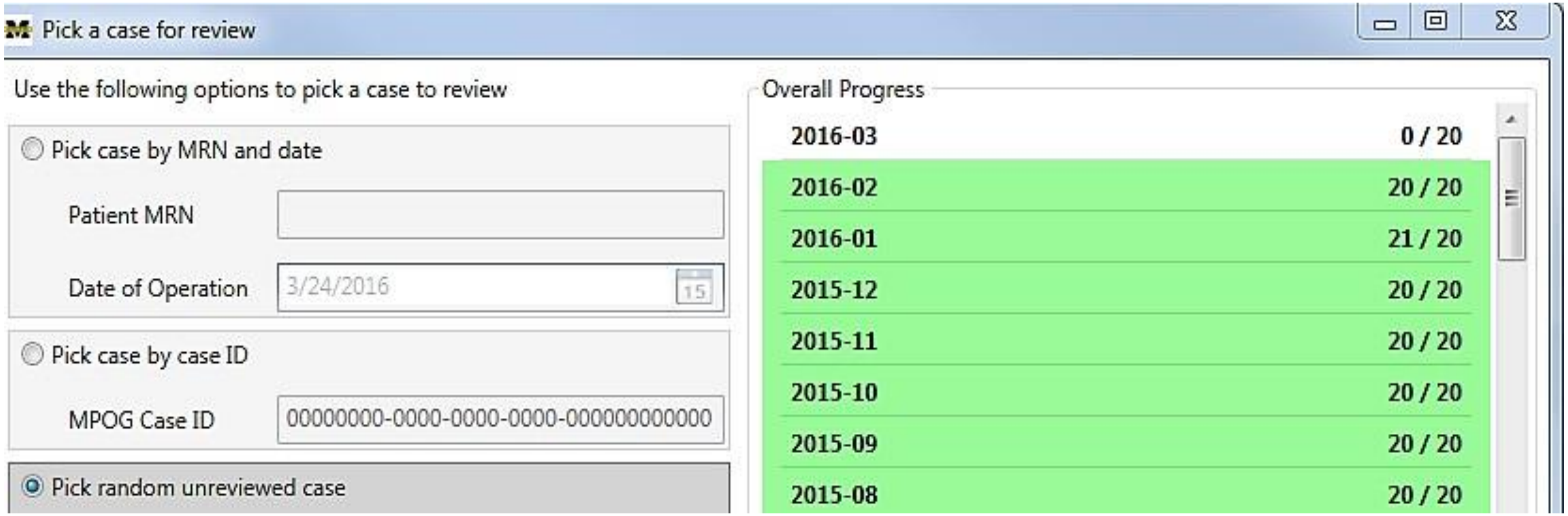
Case Validation

- After all questions are answered for the selected case, click the “Save Answers” button in the bottom right corner of the screen.
- Once the case has been submitted, there is no way to go back and make change to the form.
- Once the case is open, you must complete it as the information will not be saved if the case is closed before submitting.



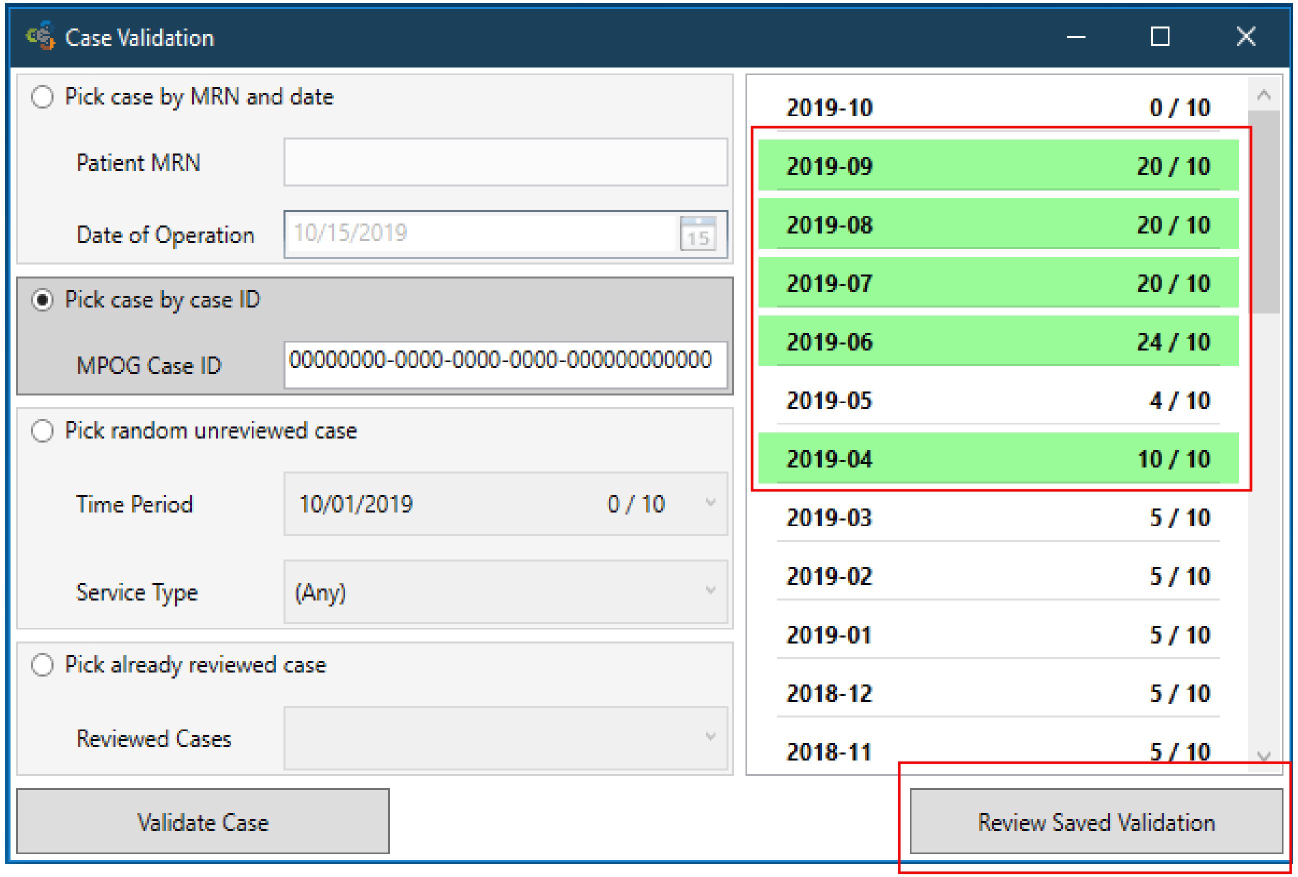
Case Validation

This will automatically save and update the monthly count for cases reviewed in the 'Overall Progress' section as seen below.

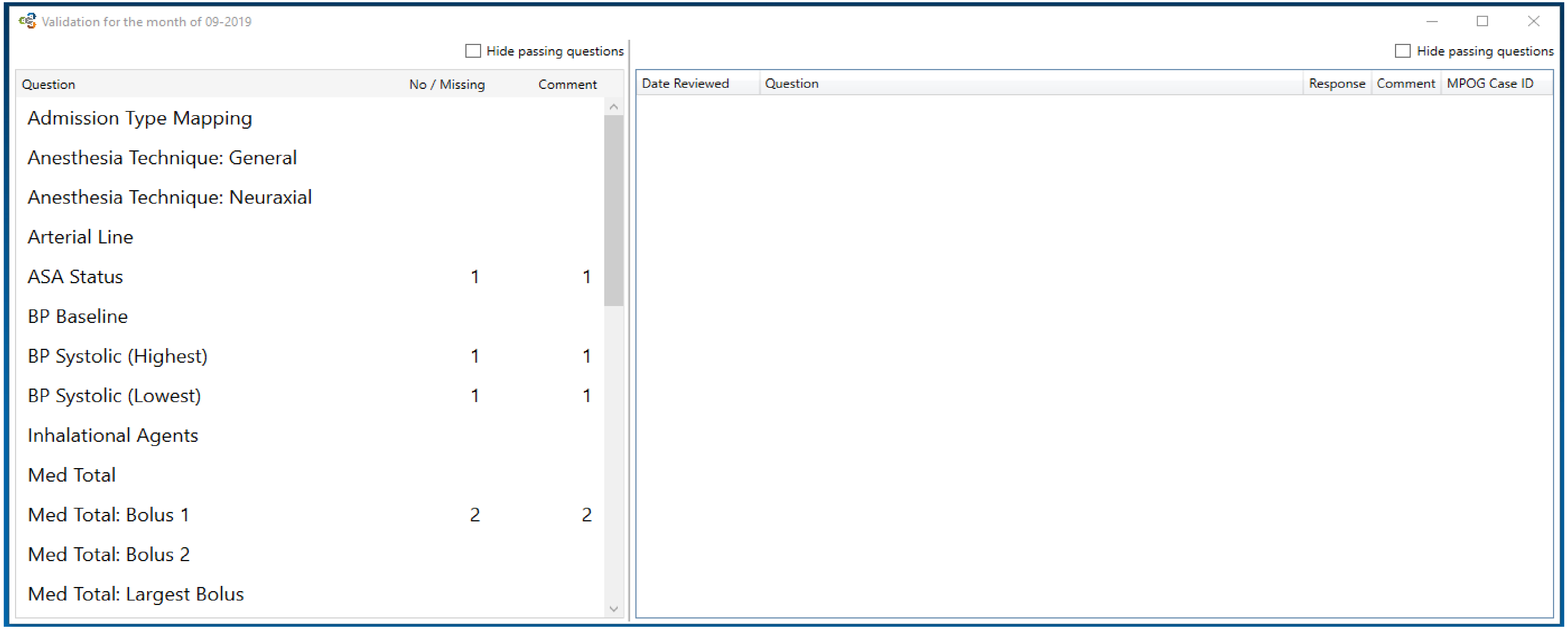


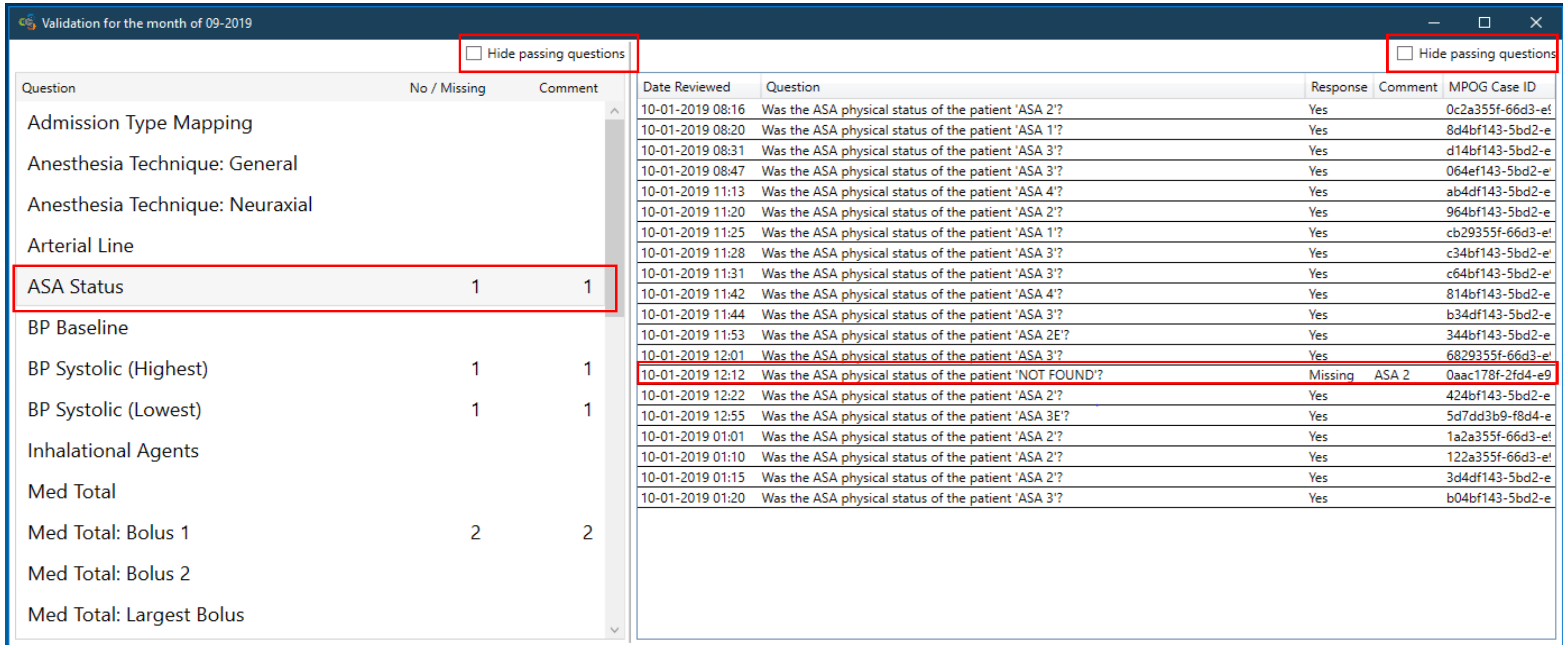
Case Validation

- To review a summary of past case validations, use the “Review Saved Validation” button. First, click the month that you want to see. Then, click “Review Saved Validation



- This screen will appear with a summary of the case validation questions and counts of the number of cases that month that had the question answered “No” and the number of cases with comments





Validation for the month of 09-2019

Hide passing questions

Question	No / Missing	Comment
Admission Type Mapping		
Anesthesia Technique: General		
Anesthesia Technique: Neuraxial		
Arterial Line		
ASA Status	1	1
BP Baseline		
BP Systolic (Highest)	1	1
BP Systolic (Lowest)	1	1
Inhalational Agents		
Med Total		
Med Total: Bolus 1	2	2
Med Total: Bolus 2		
Med Total: Largest Bolus		

Hide passing questions

Date Reviewed	Question	Response	Comment	MPOG Case ID
10-01-2019 08:16	Was the ASA physical status of the patient 'ASA 2'?	Yes		0c2a355f-66d3-e
10-01-2019 08:20	Was the ASA physical status of the patient 'ASA 1'?	Yes		8d4bf143-5bd2-e
10-01-2019 08:31	Was the ASA physical status of the patient 'ASA 3'?	Yes		d14bf143-5bd2-e
10-01-2019 08:47	Was the ASA physical status of the patient 'ASA 3'?	Yes		064ef143-5bd2-e
10-01-2019 11:13	Was the ASA physical status of the patient 'ASA 4'?	Yes		ab4df143-5bd2-e
10-01-2019 11:20	Was the ASA physical status of the patient 'ASA 2'?	Yes		964bf143-5bd2-e
10-01-2019 11:25	Was the ASA physical status of the patient 'ASA 1'?	Yes		cb29355f-66d3-e
10-01-2019 11:28	Was the ASA physical status of the patient 'ASA 3'?	Yes		c34bf143-5bd2-e
10-01-2019 11:31	Was the ASA physical status of the patient 'ASA 3'?	Yes		c64bf143-5bd2-e
10-01-2019 11:42	Was the ASA physical status of the patient 'ASA 4'?	Yes		814bf143-5bd2-e
10-01-2019 11:44	Was the ASA physical status of the patient 'ASA 3'?	Yes		b34df143-5bd2-e
10-01-2019 11:53	Was the ASA physical status of the patient 'ASA 2E'?	Yes		344bf143-5bd2-e
10-01-2019 12:01	Was the ASA physical status of the patient 'ASA 3'?	Yes		6829355f-66d3-e
10-01-2019 12:12	Was the ASA physical status of the patient 'NOT FOUND'?	Missing	ASA 2	0aac178f-2fd4-e9
10-01-2019 12:22	Was the ASA physical status of the patient 'ASA 2'?	Yes		424bf143-5bd2-e
10-01-2019 12:55	Was the ASA physical status of the patient 'ASA 3E'?	Yes		5d7dd3b9-f8d4-e
10-01-2019 01:01	Was the ASA physical status of the patient 'ASA 2'?	Yes		1a2a355f-66d3-e
10-01-2019 01:10	Was the ASA physical status of the patient 'ASA 2'?	Yes		122a355f-66d3-e
10-01-2019 01:15	Was the ASA physical status of the patient 'ASA 2'?	Yes		3d4df143-5bd2-e
10-01-2019 01:20	Was the ASA physical status of the patient 'ASA 3'?	Yes		b04bf143-5bd2-e

- Clicking on a question will bring up more information on the case validation answers for each case.
- You can use his screen to find cases with “No” answers for further review. To hide the “Yes” answers, click “Hide passing questions”.
- Double click on any MPOG Case ID to open the case in Case Viewer
- Look for trends in issues, such as date of the case. This can be helpful when identifying issues with the data.