AIRP Case Submission Guidance for Academic Year 2026-2027

Welcome to the ACR Institute for Radiologic Pathology™ (AIRP®) course! As part of attending our Four-Week Radiologic-Pathologic Correlation Course, you will be submitting a case to the AIRP case archive known as ACAS. This document will provide important background information on case submission and provide page-by-page guidance on submitting a radiologic-pathologic (rad-path) correlation case to the AIRP.

As you prepare to select your radiologic-pathologic correlation case, please be aware that the most important aspect of your case is the quality of the radiologic-pathologic correlation — how well the pathology and imaging findings align and how the pathology findings explain the imaging findings.

Here are a few common examples of strong radiologic-pathologic correlation from the GU section to illustrate the point:

1. Mature cystic teratoma: Imaging will show fat (echogenic at US, fat-attenuation at CT, loss of signal with fat suppression at MRI). Gross pathology will show yellowish sebaceous material within a cystic mass. Histology will show the sebaceous glands that produce the sebaceous material that results in the imaging appearance of macroscopic fat.

2. Ovarian fibroma: US shows a hypoechoic mass with shadowing. MRI shows low T2 signal and delayed enhancement. These are image findings that we associate with abundant fibrous tissue. Gross pathology will show a homogeneous mass that is white tan due to collagen. Histology will show an abundant collagenous matrix as wavy pink fibers.

Please note that the case you submit can be an example of a common, uncommon or rare disease. The key is the quality of the case submission, rather than the rarity of the diagnosis. As you will see, our course materials heavily feature examples from your case submissions. We include examples of both common and uncommon conditions in the course. Most cases selected as “Best Case” will be an uncommonly exquisite depiction of radiologic-pathologic correlation, regardless of how common or uncommon the diagnosis is.

Developing a case contribution has tangible benefits to you, your partnering pathologist and the radiology community of lifelong learners. It allows you to gain direct experience with radiologic-pathologic correlation at your home institution through interactions with your local pathology department. Case contributions also allows you to help support the education of your peers, future radiology trainees and practicing radiologists.

High-quality case submissions will be recognized in multiple ways:

1. New in academic year 2026-2027, all complete, high-quality cases will be designated as meeting ACGME requirements for scholarly activity. Documentation of this designation

will be provided to your residency training program for your learning portfolio. Similar documentation will be provided to all pathology trainees who support your case submission.

2. The Best Cases for each section will be invited for publication in either a Special Issue of the ARRS Journal Roentgen Ray Review (R3) or as part of the ACR Case-in-Point program under a new special section on radiologic-pathologic correlation.

. Developing a case contribution will require some effort on your part, but we're here to support you every step of the way. Please use the information below as a step-by-step guide to making a high-quality radiologic-pathologic correlation case submission.

All case submissions should contain the following:

- -High-quality imaging (multiple modalities are ideal but not required)
- -Sectioned gross image that correlates with the imaging
- -H&E histology images that show the diagnostic findings (low and high-power images are ideal)
- -IHC stains that support the diagnosis

Top seven case submission errors to avoid:

1. Late case submission. The due date is 60 days before the first day of your course.

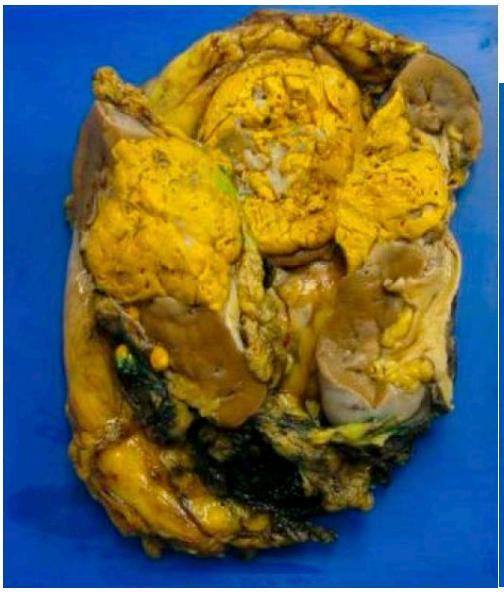
2. Failing to upload DICOM image sets AND representative images (JPEG format) from all imaging studies related to your case submission (i.e. uploading only an MRI for a patient with an adnexal mass initially detected with US).

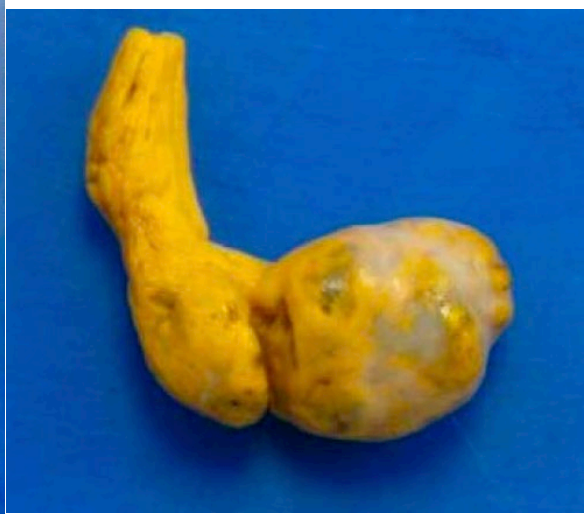
3. Incomplete upload of DICOM image sets. All images, series and sequences should be uploaded in their entirety.

4. Incomplete redaction of PHI (see guidance below).

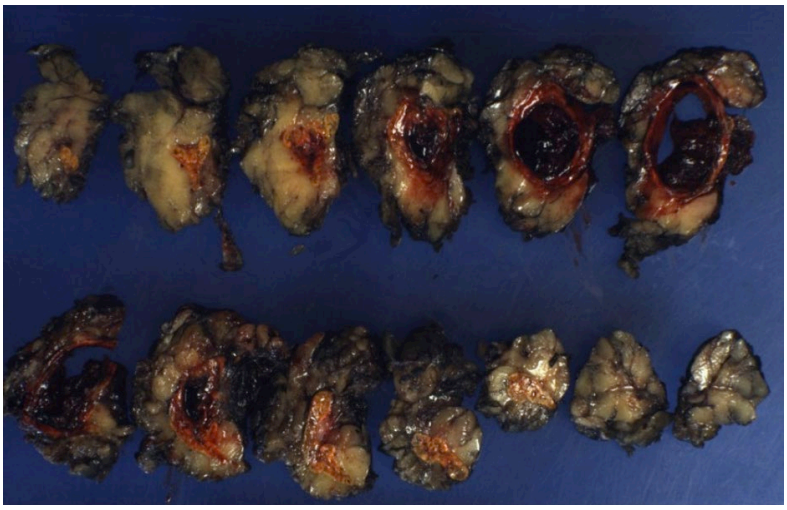
5. Missing, blurry or unsectioned gross pathology image(s). Gross pathology is a key case submission requirement because the **sectioned** gross appearance often best correlates with our cross-sectional imaging. Obtaining a sectioned gross image often requires pre-planning with the surgical and/or pathologic teams. Failure to submit a gross pathology image due to unavailability is NOT acceptable and will typically require submission of an alternative case. Some acceptable cases will lack gross pathology correlation due to biospy-based diagnosis, rather than resection, or the small size of the lesion. For example, lymphoma cases are often biopsied rather than resected. Prostate adenocarcinomas are often small and not seen in the gross pathology specimens. Contact your AIRP Section Chief for a waiver before preparing your

case if you think your case may qualify for a waiver. Their contact information can be found on the case submission page. Cases without gross pathology correlation are rarely selected as a section's Best Case. Below are examples of acceptable gross images.





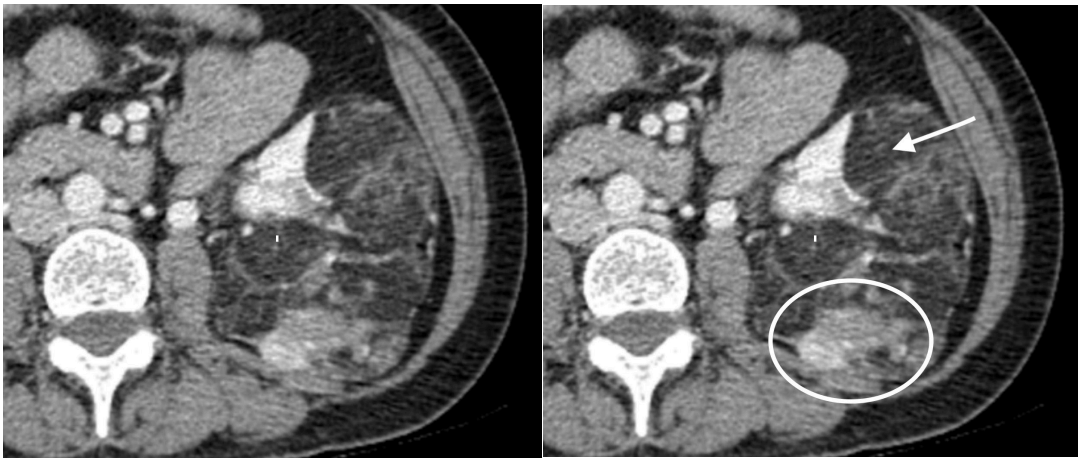
The first image is a good-quality gross pathology image showing a nephrectomy specimen with a sectioned renal mass. The second image is unsectioned but acceptable because it was selected to show the morphology of the tumor thrombus. The quality of the second image is limited by a blurry image. Before submitting, ask yourself if you would want to use this image in a publication.



This example shows multiple sections from an adrenalectomy gross specimen. It clearly demonstrates hemorrhage and cystic degeneration of the mass, which correlates well with the imaging findings. Although the image is slightly underexposed, it is otherwise acceptable.

6. Missing representative images of pertinent immunohistochemical stains (IHC). In cases that require IHC analysis for diagnosis, the pertinent IHCs should be submitted as representative images in the pathology section of the case submission. Your partnering pathologist can help guide your selection of appropriate IHC images.

7. Incomplete or poor representative image annotation and figure legend descriptions. Each representative image (radiology and pathology images) is submitted as two versions: a clean version and an annotated version. The annotated version should be treated as a figure part for a manuscript. Each image should be clearly annotated (consider arrows, arrowheads, stars, circles, etc.). Each figure caption should describe what is seen in your representative image and what each annotation indicates. Below is an example of a renal AML submission:



Caption (clean image): Axial postcontrast CT image demonstrates a large left renal mass composed of macroscopic fat and soft tissue elements.

Caption (annotated image): Axial postcontrast CT image demonstrates a large left renal mass composed of macroscopic fat (arrow) and soft tissue elements (circle).

Case submission checklist:

Below is a checklist of what is needed for your case submission:

1. Case data

- Organ system (example: GU)
- Organ location (example: kidney)
- Diagnosis (example: RCC)
- At least 2 differential diagnoses (example: oncocytoma, AML)

- Patient data (age, sex, race)
- Contribution hospital (name and address)
- Pathologist information (name and email address)

2. Clinical information

- H&P or alternate clinical presentation note PDF (**redacted**, ideally with a PDF editor). The AIRP's guidance on what PHI to remove is included at the end of this document.
- Operative or procedural note PDF (**redacted**, ideally with a PDF editor)
- Discharge summary PDF (optional) (**redacted**, ideally with a PDF editor)

3. Radiology

- DICOM image files for upload (all studies and series/sequences)
- Representative radiology images in JPEG format (clean version)
- Representative radiology images in JPEG format (annotated version)
- Radiology report(s) PDF (all uploaded exams) (**redacted**, ideally with a PDF editor)

4. Pathology

- Gross image(s) in JPEG format (clean version)
- Gross image(s) in JPEG format (annotated version)
- Histology slide(s) — virtual microscopy files or physical slides. Detailed guidance on what is needed and how to submit files/slides is located near the end of this document in the **Pathologic Slides Guidance** section.
- Representative histology image(s) in JPEG format (clean version)
- Representative histology image(s) in JPEG format (annotated version)
- Pathology or autopsy report PDF (**redacted**, ideally with a PDF editor)

5. Multimedia

- A short video presentation of your case in MP4 or MOV format (< 5 min) (**required for scholarly activity designation**)
- Illustration(s) (optional, but may be used to enrich your case submission)

6. Educational activity

- At least three references you will use to complete your case write-up

Page-by-page case submission guide

Below is a page-by-page collection of screenshots from the ACAS system. You will complete each section step by step as you work toward submitting your full case.

Within the ACAS system, each page includes clear instructions outlining what is required to complete that section. . Additional notes have been added after selected screenshots. These notes provide further guidance or clarification to help avoid common mistakes and maximize case quality. The system also has an extensive archive of FAQs for your reference. If additional guidance is needed, you can contact case submission support staff at AIRPCaseSubmission@acr.org.

Section 1: Case Data

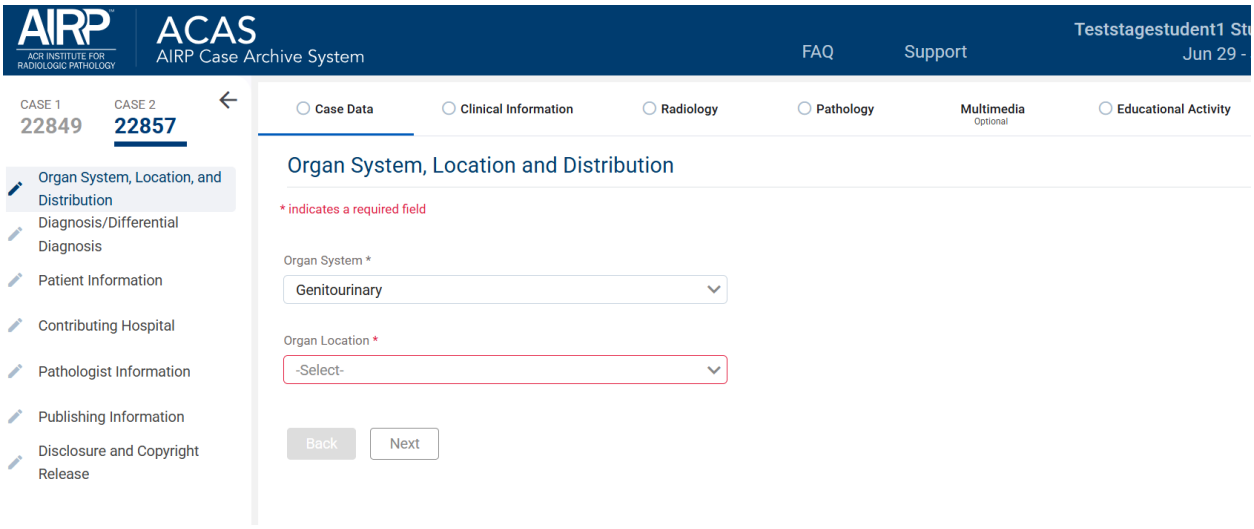
The first section of your case submission requires you to enter essential case details that enable your submission to be properly organized within the broader case archive. Before you begin, it's important to understand how the AIRP archive is structured. . The AIRP archive is divided into seven sections:

1. Genitourinary (GU)(with Retroperitoneal cases)
2. Gastrointestinal (GI)(with Peritoneal cases)
3. Musculoskeletal (MSK)
4. Neuroradiology (NR)
5. Breast imaging (BI)
6. Pediatric radiology (PR)
7. Cardiothoracic radiology (CT)

If a case involves two areas (renal cell carcinoma that is metastatic to the bone), decide which vantage point you want to submit the case from (the bone metastasis or renal mass) and submit it to that section.

Each section has a Section Chief who is responsible for reviewing and evaluating your case for completeness, quality and educational value. Each Section Chief selects one "Best Case" for the course. The Section Chiefs for each section can be found on the faculty application page.

ACAS screenshots: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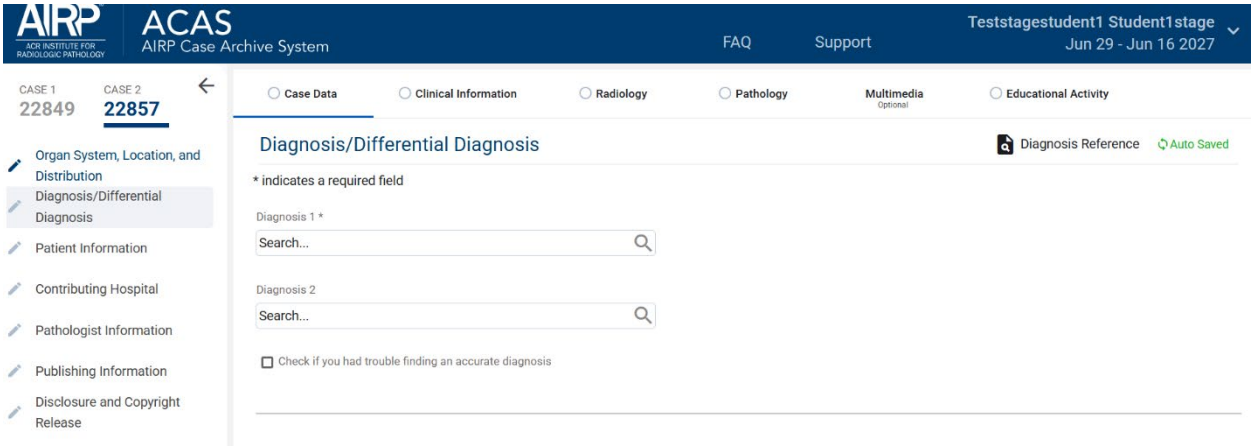
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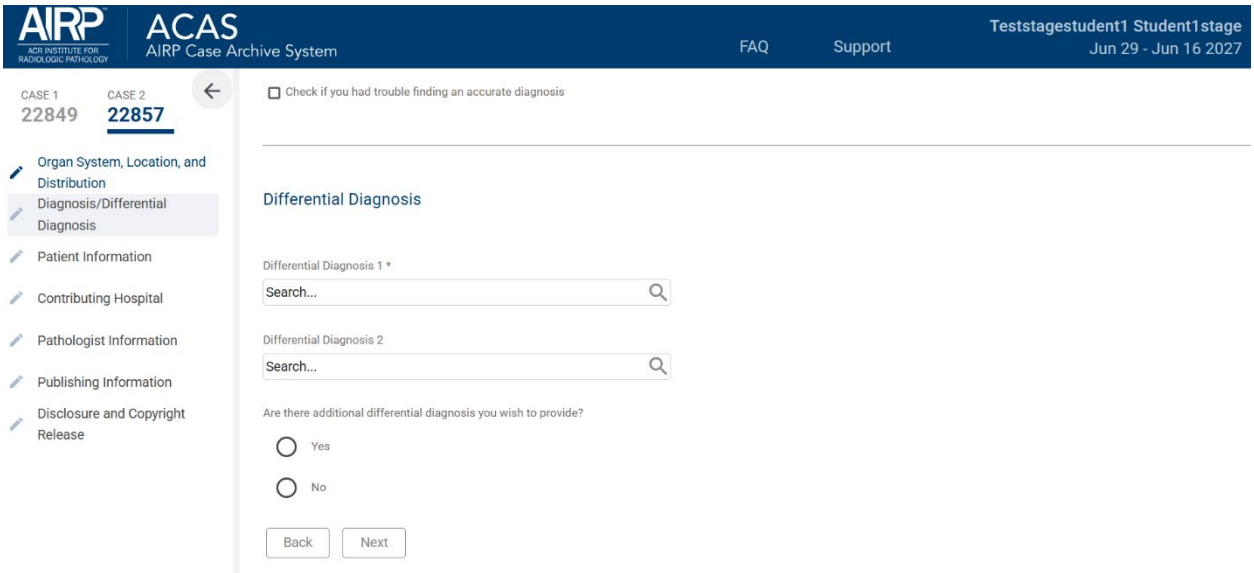
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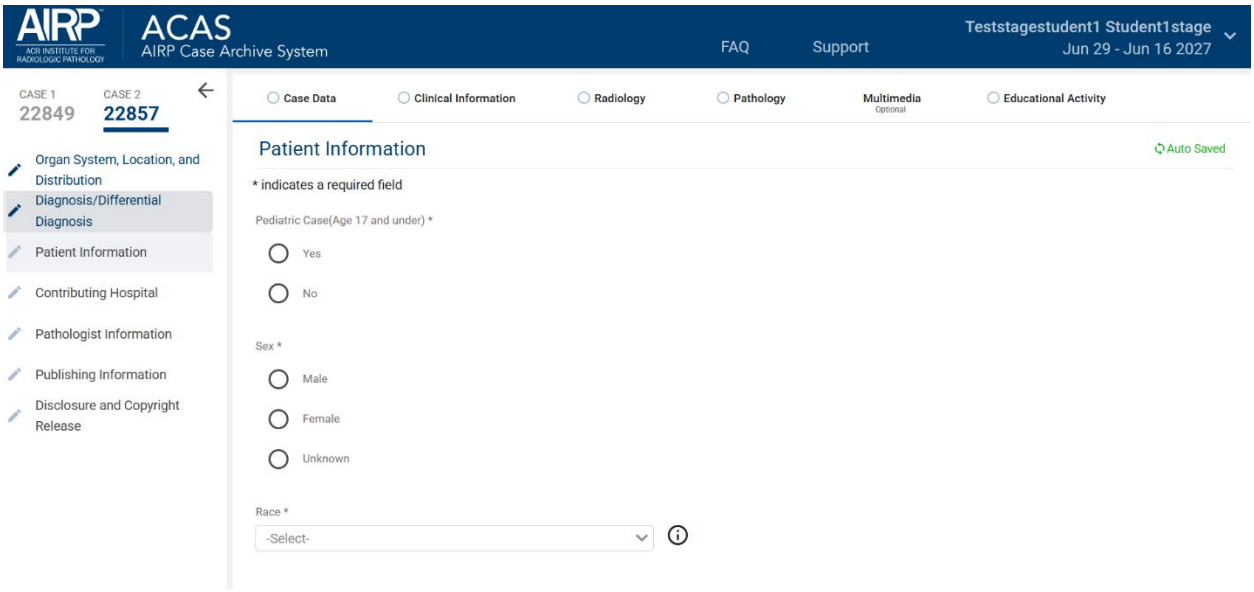
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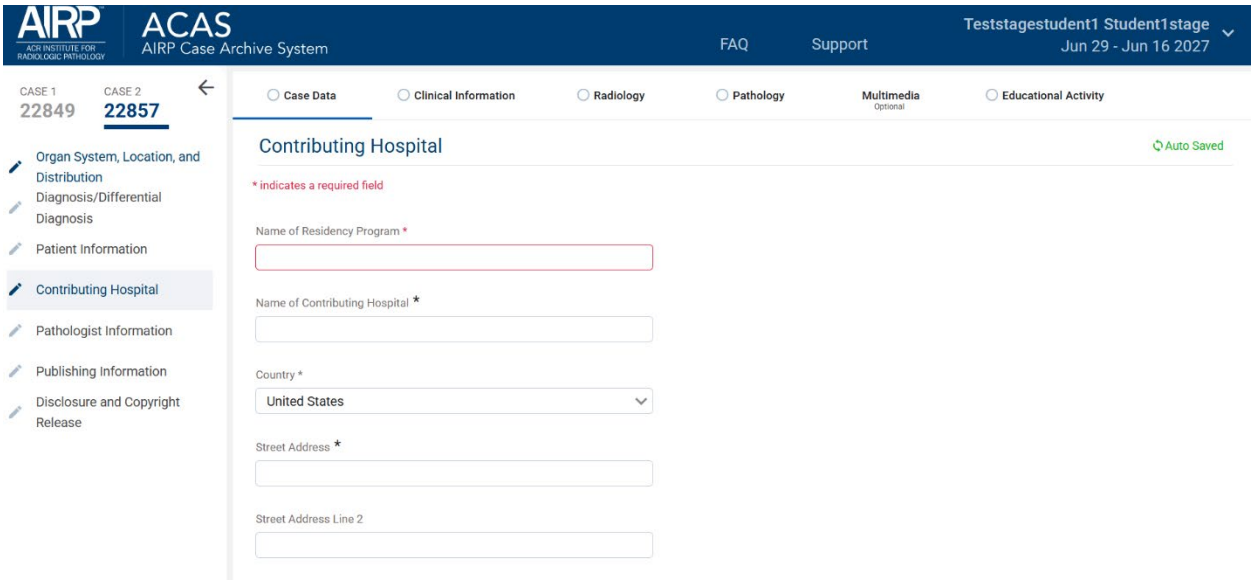
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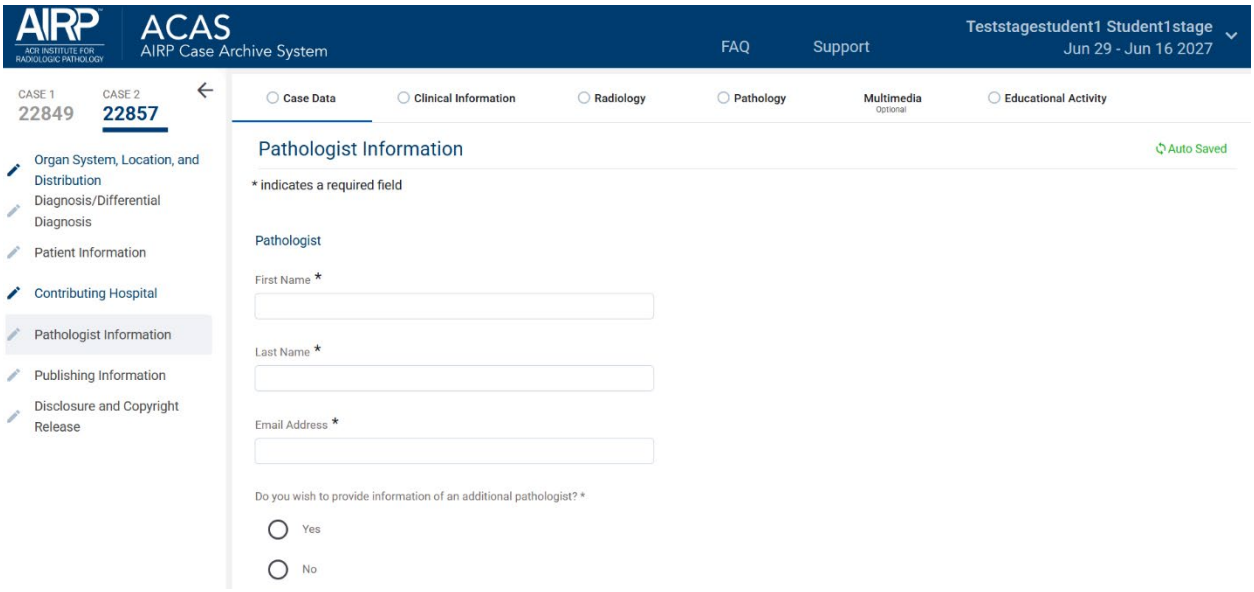
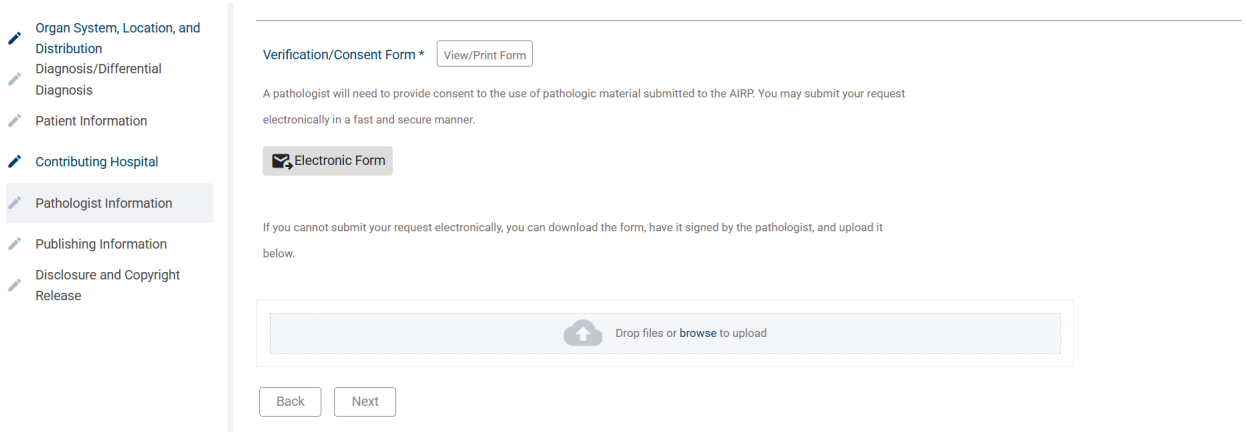
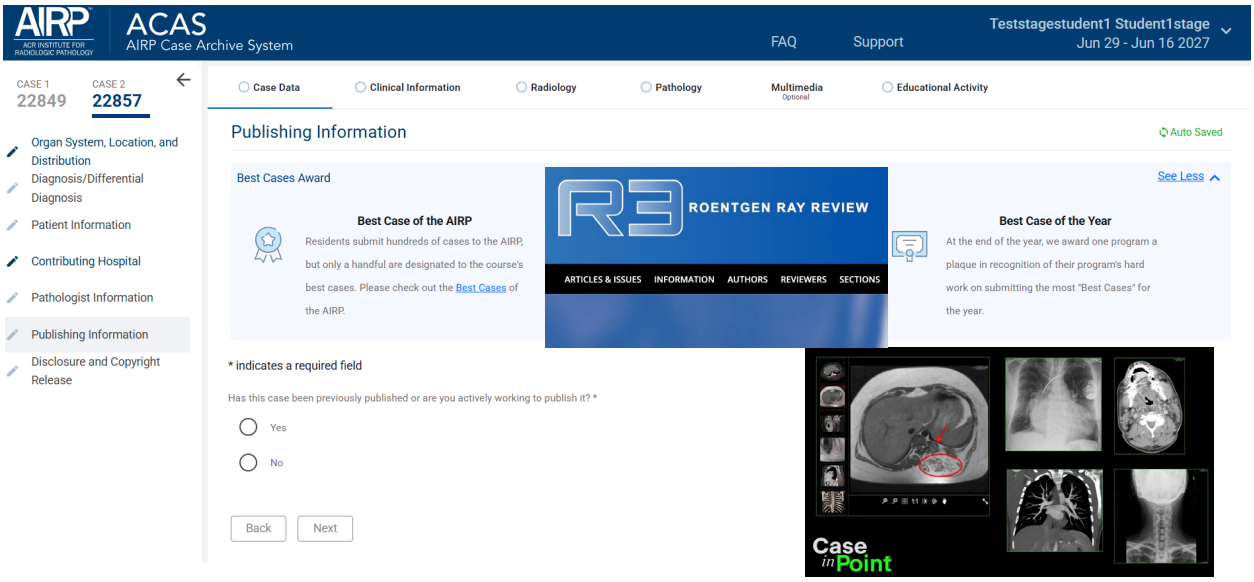


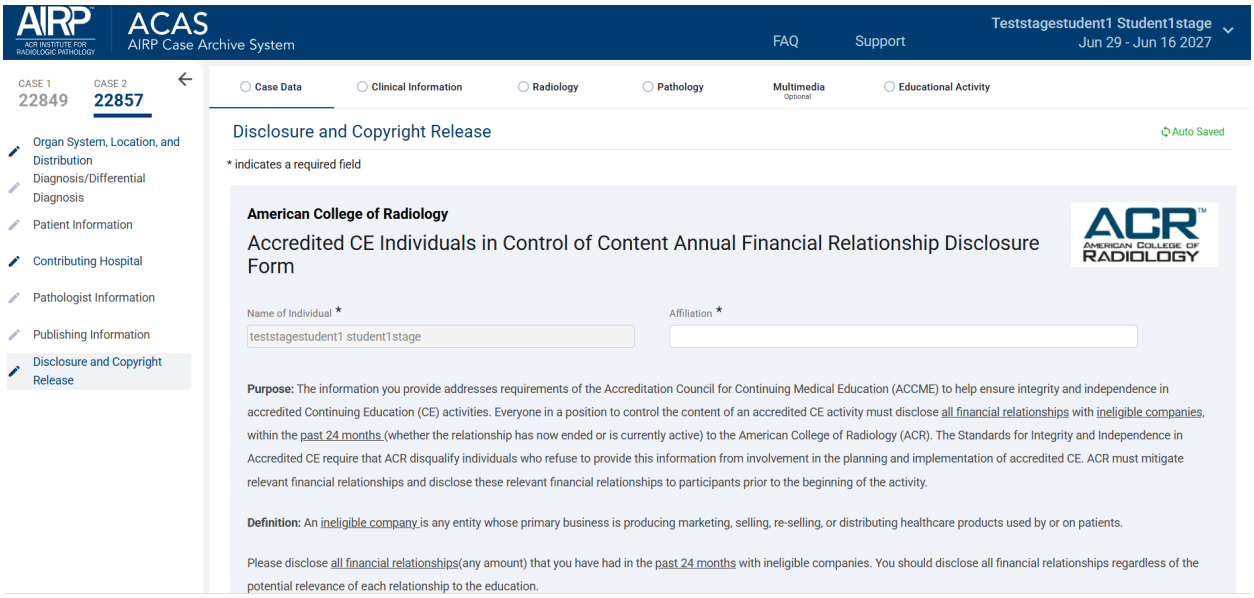
Please consider including a pathology resident or fellow in your case submission. If you previously worked with a pathology trainee in developing your case submission, we will recognize both persons' contributions with scholarly activity documentation, as described above. The first pathologist entered should be the attending pathologist. Please add the pathology resident or fellow as an “additional pathologist.”



You will be required to submit a pathology verification/consent form (see above) before final case submission. The information on this form will be auto-populated from the information entered in ACAS. And the form can be signed electronically.



If you have already begun the process of submitting your case for publication, please indicate this by selecting “Yes.” If you have not yet submitted your case but are interested in doing so, we encourage you to consider waiting. Cases selected as “Best Cases” during the AIRP course may have additional publication opportunities, including inclusion in the annual *Best Cases of the AIRP* special issue of the ARRS journal *R3* and online publication in the ACR Case-in-Point Archive within the radiologic-pathologic correlation section.



Section 2: Clinical information

This section focuses on submitting the clinical information related to your case. There are three text boxes to complete, one of which is mandatory.

Text box 1 – Clinical Presentation (mandatory): Enter the patient's HPI, pertinent past medical and surgical history and any other information that led to the decision to image the patient. The information should be relevant and succinct.

Example 1: 47-year-old male with no significant past medical or surgical history presents to the emergency department with right flank pain and gross hematuria. Physical examination was unremarkable. Urinary analysis was positive for blood in the urine. The other labs, including the Cr, were normal. CT of the abdomen and pelvis without contrast performed to evaluate for obstructing urolithiasis was negative for urolithiasis but positive for a right renal mass. Renal mass protocol CT was performed for further assessment.

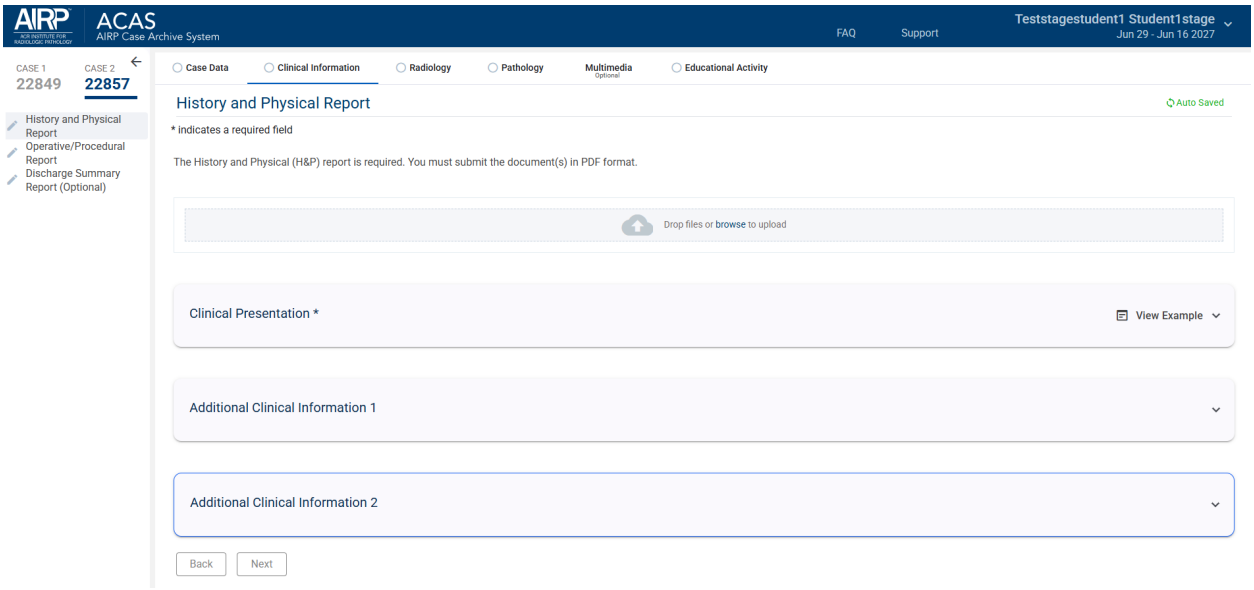
Text box 2 - Additional Clinical Information 1 (optional): This should be used to provide any information that was obtained after the initial imaging evaluation but before tissue was obtained for pathology assessment.

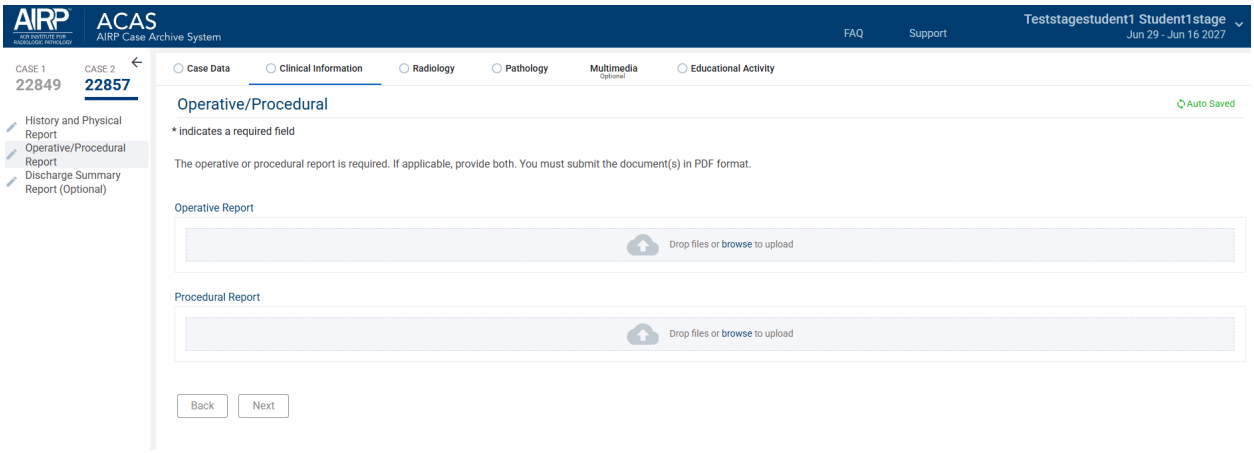
Example 1: Urology consultation was obtained for management of the newly detected renal mass. Given the suspicion of renal cell carcinoma of the right kidney without renal vein invasion or adenopathy, partial nephrectomy was performed without immediate complication.

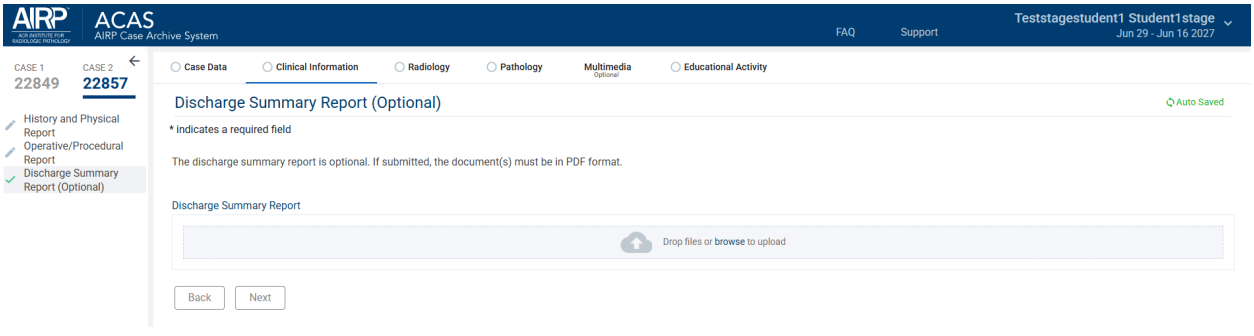
Text box 3 - Additional Clinical Information 2 (optional): This should be used to provide information regarding further management or follow-up after pathological diagnosis.

Example 1: Given the pathologic diagnosis of clear cell renal cell carcinoma, pT1a, no further treatment is required at this time. The patient will undergo regular surveillance imaging with CT to monitor for recurrence.

Please note that your case submission will be reviewed by the appropriate AIRP Section Chief after submission. Following the guidance above allows your case to be displayed to the Section Chief as a case report that is organized in a logical pattern. This review is critical to determining if your case is considered acceptable for scholarly activity credit and if it is the section's Best Case from the course.





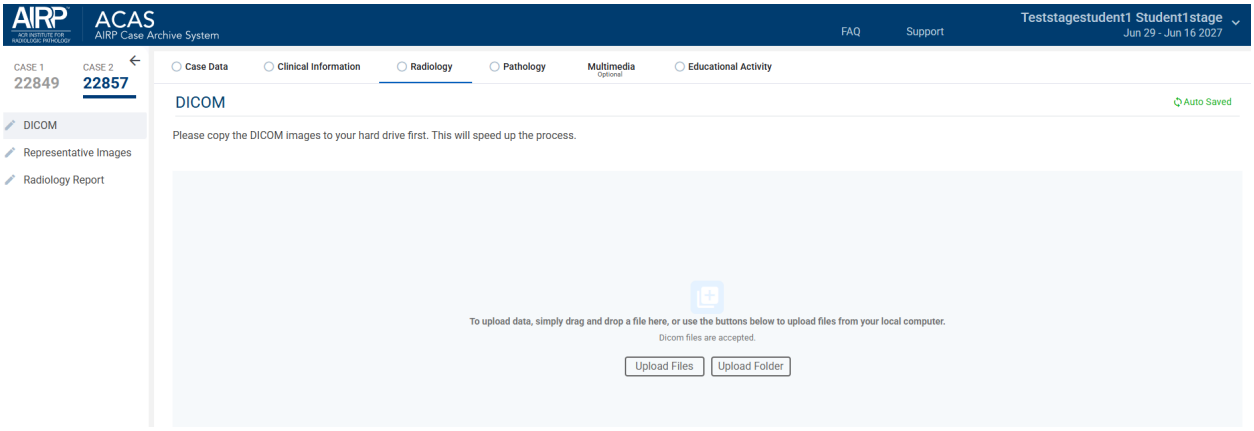


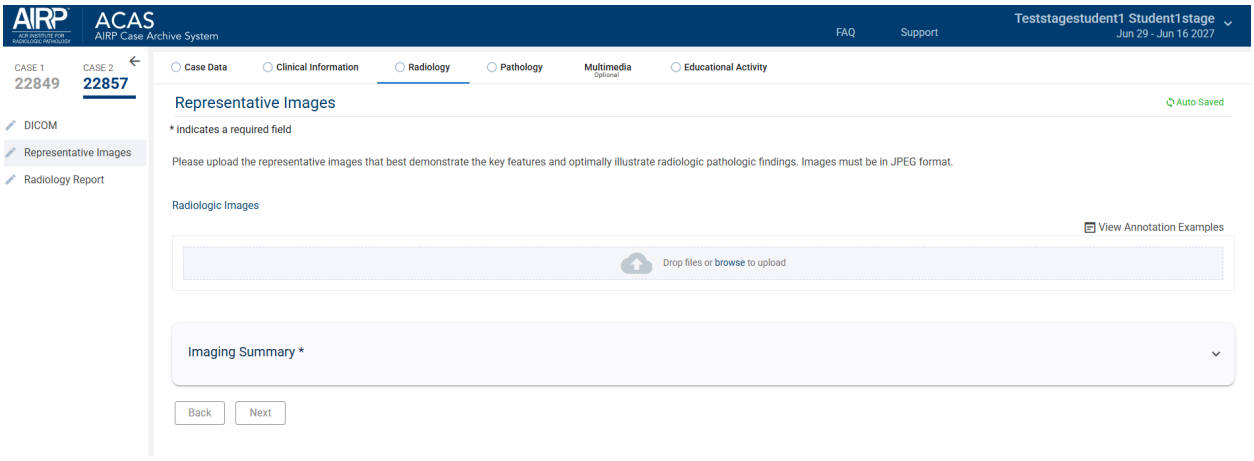
In addition to your text entries, we verify the case data using primary sources. Most cases will have an operative report, a procedural report and/or a discharge summary for submission. These documents must be free of PHI. PHI removal is best done using a PDF editor to black out

the relevant information. Key information to be redacted includes names, dates and numbers. The full list of PHI that must be removed is included at the end of this document.

Section 3: Radiology

The section focuses on the radiologic studies performed for your patient. The first step is to upload the DICOM images for all relevant studies, including all series and/or sequences. Any study referenced in the clinical information section must be uploaded in its entirety. Submissions with incomplete imaging—such as missing studies, views, series, or sequences—will not be accepted until all required materials are provided.





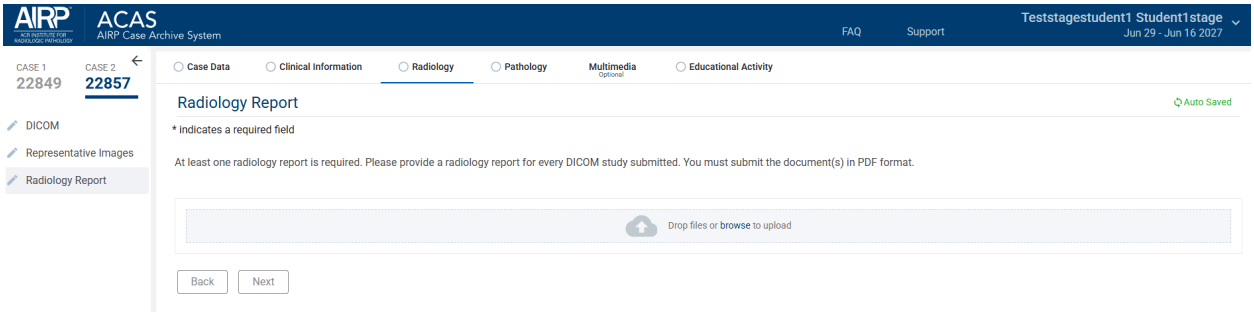
Step two is to include representative images (JPEG format) highlighting the key findings from all submitted studies. Two copies of each image are required: one clean (unannotated) version and one annotated version. Annotations should be neat, clear, and consistent with the style used in journal figures—for example, a simple arrow pointing to the main finding is sufficient.

Please refer to the high-quality example in the “Top Seven Case Submission Errors to Avoid” section above. Commonly used tools for annotation include PowerPoint, Word, and Photoshop; an annotation tool is also available within ACAS if you prefer to annotate during submission. All representative images must be free of PHI—ultrasound images, in particular, often require careful redaction.

You should also include a brief narrative imaging summary that highlights the key findings.

Sample narrative imaging summary for a typical ccRCC: CT demonstrated a solid, expansile right renal mass. The mass showed heterogeneous avid enhancement in the corticomedullary phase. No renal vein invasion or retroperitoneal adenopathy.

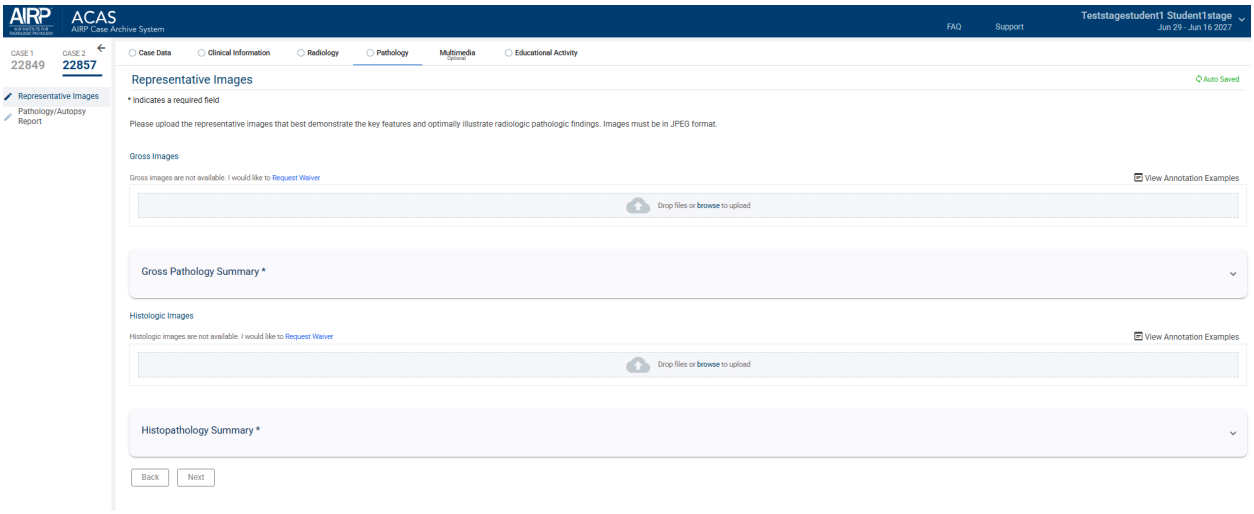
Sample narrative imaging summary for a typical classic renal AML: CT demonstrated a solid, expansile, exophytic renal mass composed of a mixture of macroscopic fat and soft tissue elements. No associated retroperitoneal hemorrhage or renal vein involvement.



The final step for the radiology section is to upload **redacted** reports for all imaging studies.

Section 4: Pathology

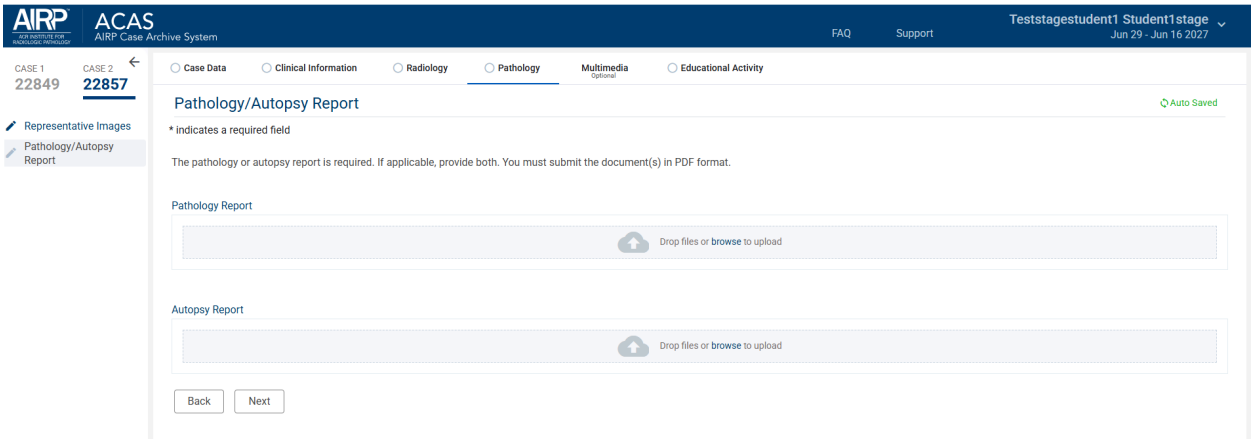
The fourth section focuses on submitting the pathology associated with the case, including representative gross and histology images and a virtual or physical slide(s). Redacted pathology or autopsy reports are also required.



Please use this section to upload representative gross pathology and histopathology images. As with the radiology images, submit two versions of each pathology image: a clean (unannotated) copy and an annotated copy. The annotated version should include clear, professional markings (e.g., arrows, arrowheads, circles) along with a figure caption that explains the annotations. Captions should follow the style used in journal articles.

Ensure that gross pathology images are properly sectioned and of high quality. Crop images to remove any dates, specimen identifiers, or other extraneous information. Include at least an H&E stain for histopathology; ideally, provide additional stains and magnifications that contribute meaningful diagnostic detail or support radiologic-pathologic correlation. Your pathology partner can help guide appropriate slide selection.

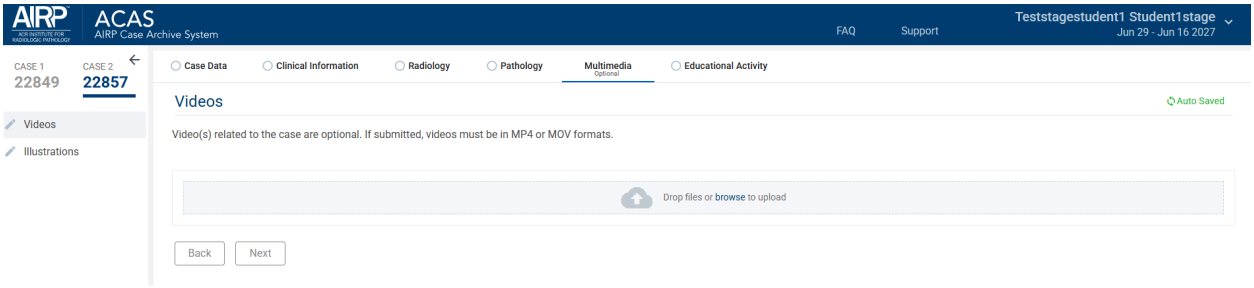
In this section, also include concise narrative summaries of the gross and histopathologic findings. These summaries should be similar in style to the imaging summary provided previously. Your pathology partner can assist in distilling the full pathology report into these brief narratives.



As a final step in the pathology section, upload redacted pathology reports. Include all relevant reports for the case, which may encompass an initial biopsy report, a definitive surgical pathology report, and/or an autopsy report, as applicable.

Section 5: Multimedia

The section is to upload a required video presentation and any optional illustrations.



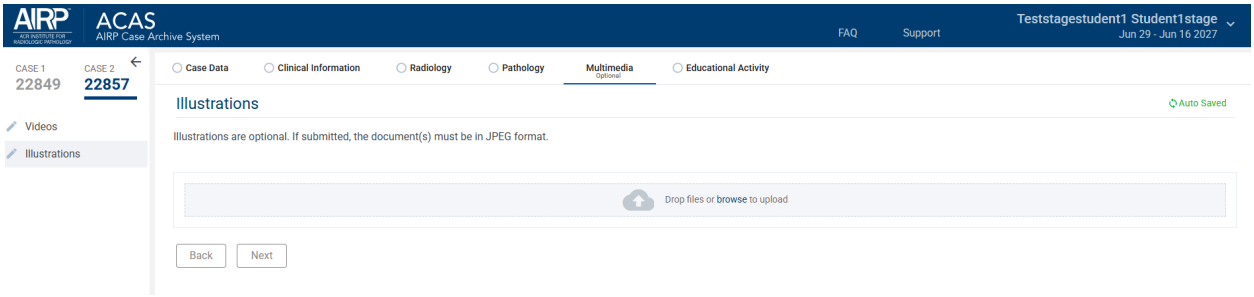
- The video upload is a requirement by the ACGME that allows us to provide scholarly activity credit for your residency learning portfolio

-The video should be short (< 5 min) and uploaded in an MP4 or MOV format.

-The purpose of the video is to provide a concise overview of your case submission. It should briefly cover the clinical presentation, key imaging findings, pathology results, and relevant management considerations. You may also include a few focused learning points from your educational activity. This should require minimal additional effort, as all of the necessary content is already developed during your case preparation.

-The presentation can be made using your preferred software, but screen recording in PPT or Google Slides is widely available (video cameras do not need to be on during the recording).

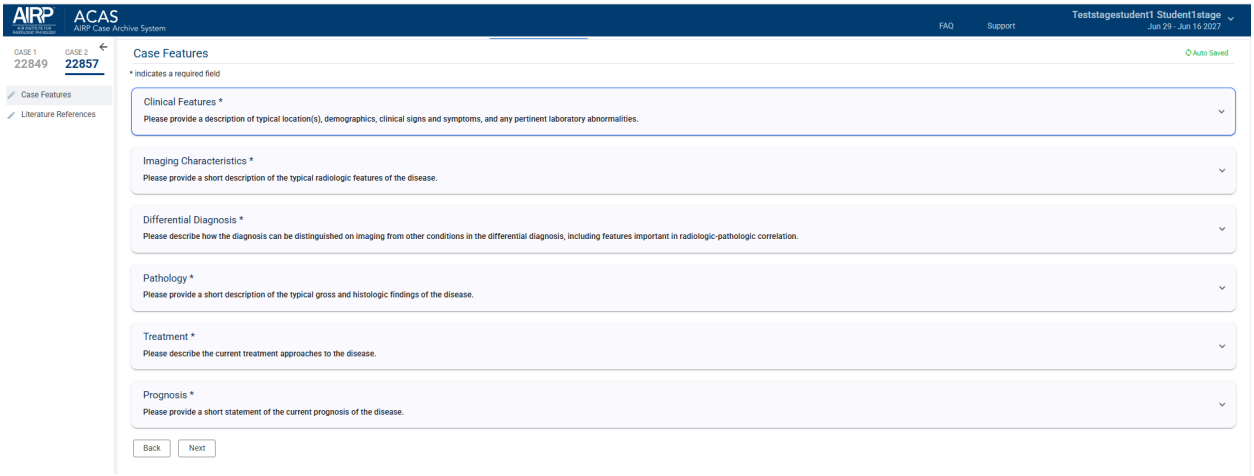
-The videos will be stored in the AIRP case archive and will not be shared without your explicit permission.

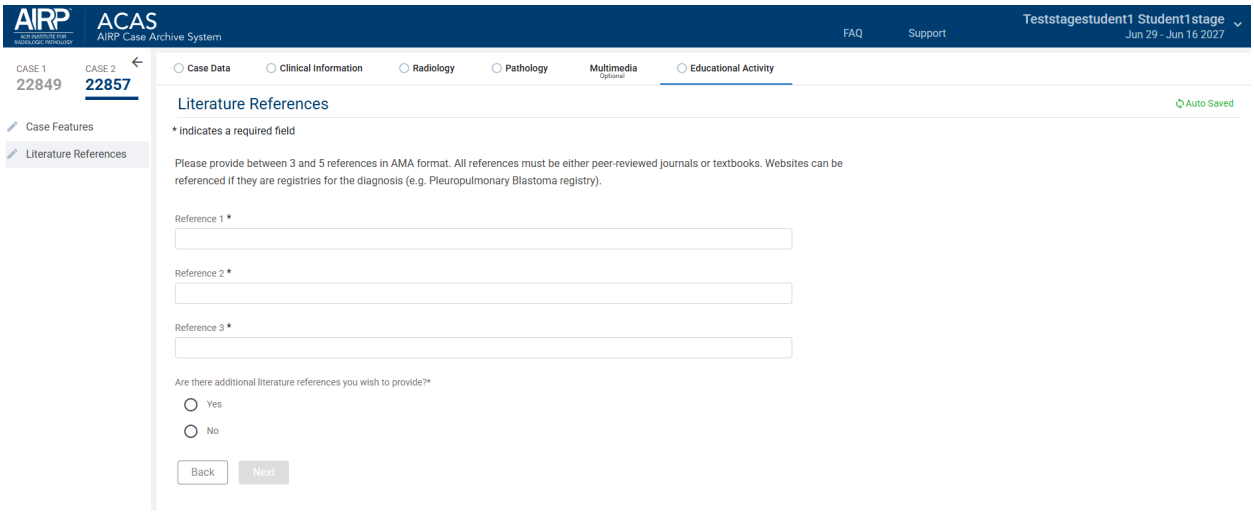


-Use this section to upload optional illustrations or diagrams that enhance your case. This is a great opportunity to add visual elements if you have an interest in creating original or creative content.

Section 6: Educational Activity

This is the final section of case submissions. Succinctly describe the clinical, radiologic and pathologic features of the disease that you selected for submission. In addition, it can be helpful to compare and contrast your case with what is typically seen.





Provide at least three references that you used to complete your educational activity. Ideally, these references are peer-reviewed publications.

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Additional Section-Specific Guidance

<u>Breast Imaging:</u>

Reports

1. Case history
2. Imaging – Mammography, contrast-enhanced mammography, US, MRI, CT, PET, etc.
3. Pathology
    a. The **<u>needle core biopsy report MUST be included</u>.**
    b. If the patient went on to surgical excision/removal, <u>the final surgical pathology report is also required</u>.
4. Surgical – If the patient went on to excision.

Mammographic Imaging

1. Submit <u>orthogonal views</u> of the breast of concern: MLO/ML and CC, even if the lesion is only seen in 1-view.
    a. <u>For tomosynthesis studies</u>
        i. Submit the synthetic 2D images - MLO/ML and CC.
        ii. Submit the <u>slice images</u> for both the MLO/ML and CC views in which the <u>lesion is seen</u>.

2. If acquired at your institution, submit the spot view(s) of the lesion.
    a. For tomosynthesis studies, include the slice images in which the lesion is best seen.
3. Submit magnification views for lesions that are calcifications.
    a. Both the CC and 90 degree views to demonstrate the finding.

Contrast Enhanced Mammographic Imaging

1. Submit orthogonal views of the dual-energy mammogram of the breast of concern: MLO/ML and CC, even if the lesion is only seen in 1-view.
2. Submit the recombined images: MLO/ML and CC that demonstrate the finding.

Ultrasound Imaging

1. Submit orthogonal US images of the lesion.
2. Include Doppler imaging of the lesion, if available.

MR Imaging

1. The **minimum three sequences** that demonstrate the lesion need to be submitted for MRI studies.
    a. T2 pre-contrast
    b. T1 pre-contrast
    c. T1 post-contrast
2. If there is nodal involvement, submit appropriate images to demonstrate axillary and/or internal mammary findings.

CT or PET/CT

1. Submit the image slice and/or slices (especially for a large mass) that demonstrate the lesion.
2. If more than axial imaging has been performed, submit sagittal and coronal images of the lesion.
3. If there is nodal involvement, submit appropriate images to demonstrate axillary and/or internal mammary findings.

Histology Images

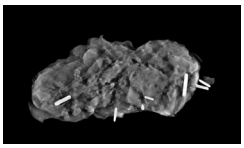
1. H&E of the lesion.
2. In addition to the H&E, submit special stains to confirm the diagnosis.

Examples: Estrogen receptor, progesterone receptor, HER2, S-100, CD20/30.

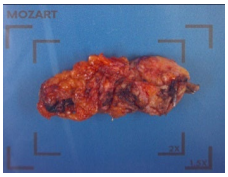
Your pathologist should be able to assist with the additional JPEG images.

Gross Pathology Images

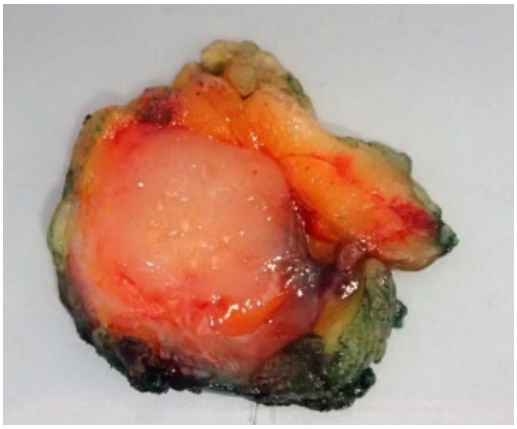
1. A surgical **specimen radiograph is not a gross pathology image**.



2. An image of the surgical specimen at the time of the specimen radiograph is not a gross pathology image, unless the lesion is clearly visible. In this example, the lesion is not seen. The tissue is not cut to show the lesion, therefore, this is not a gross pathology image.



3. Below is an example of an appropriate gross pathology image. The tissue is cut to demonstrate the mass centrally (arrow).



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Pathologic Slides Guidance

All case submissions require a corresponding histologic slide and signed verification/consent form, sent by mail or virtually.

Send physical glass slides by mail to:

AIRP
1100 Wayne Ave, Suite 1020
Silver Spring, MD, 20910

- Include a printed copy of your verification/consent form, signed by your pathologist.
- Ship slides in a hard-plastic case or similar container.

Virtual microscopy files should be in **.svs**, **.ndpi**, **.bif**, **.mrxs,** or **.vsi** format.

- JPEG and PNG files are not acceptable.
- Some slides accessible only through a browser-based viewer are acceptable.
- High-resolution TIFF files may be acceptable.

Please contact AIRPCaseSubmission@acr.org if you have any questions.

To submit a virtual slide, please email AIRPCaseSubmission@acr.orgwith your Case ID number. You will be sent a Box link to upload your slide submission.
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PHI Removal List

Names

- Patient name
- Physician names
    - This includes initials
- Tech/operator names
    - This includes initials
- Facility/hospital names and addresses
    - Check the immunohistochemistry disclaimer on the pathology report

Dates

- ALL dates including years
- Check representative images
- Protocol posted does not need redaction
- Printed date does not need redaction
- Patient age does not need redaction

Numbers

- Accession/specimen ID number
    - Commonly unredacted
    - Check gross and histology representative images
- Order number
- MRN (medical record number)
- Document number
- Phone/fax/pager numbers
- CPT codes
    - Common in discharge summaries
- DICOM tags are not PHI and indicate the type of study. Tags are usually four numbers listed before or after the title of the study.