

KEY REQUIREMENTS FOR AIRP CASE SUBMISSION

(For more detailed instructions, please see the following pages.)

ONLINE CASE REQUIREMENTS:

Installation of Microsoft Silverlight to your PC – The AIRP Case Package web application requires installation of Microsoft’s Silverlight. Go to <http://www.microsoft.com/silverlight/> for a free download. You will also need access to an application that will allow you to remove patient identifiers from JPEG images, such as Microsoft Paint or Adobe Photoshop.

- **Case Data Entry** – Includes basic case information and a summary of reports
- **Upload Documents** – Required documentation in **PDF format** of actual reports: radiology, operative/procedural and original pathology/autopsy reports.
- **Upload Images** – Required radiologic images in **DICOM format**; gross specimen images in **JPEG format**.
- **Case Summary** – Two sets of selected images in **JPEG format**, without any patient identifiers or specimen numbers. The Selected Images, Diagnosis, Differential Diagnosis, Demographics, Pathology, Treatment and Prognosis that you enter in this section will be used to develop an online teaching tool for residents.
- **Submit Case Package** – When all sections have been completed, submit your case.

CASE REQUIREMENTS TO BE BROUGHT TO THE COURSE:

- **Pathologic Specimen:** glass slide(s) or paraffin block(s) that adequately represent the case. A DVD of Virtual Microscopy is also acceptable, if available.
- **Print-out of the Case Data Entry form, including the Consent/Verification form:** Form must be completed and SIGNED BY YOUR PATHOLOGIST. **No pathologic specimens will be accepted at the course without the Case Data Entry and Consent/Verification forms in-hand. YOU WILL NEED TO HAVE THESE FORMS SIGNED AND PREPARED WITH THE SPECIMEN BEFORE YOU LEAVE YOUR INSTITUTION.** These forms are only available by selecting PRINT within the Case Data Entry section, after entering case information and uploading a path report with a specimen ID number.
- **Schedule for Pathologic Specimen Collection**
Specimens will be collected throughout the morning and lunch breaks, during the first two weeks of the course.
 - Week 1:** **Monday** - Registration: No pathologic specimens will be collected.
Tuesday - All Pediatric, except Musculoskeletal
Wednesday - All Musculoskeletal
Thursday - Chest, Pulmonary, Cardiovascular, and Breast
Friday - Neuro
 - Week 2:** **Monday** - GU (Includes Retroperitoneum)
Tuesday - GI

INSTRUCTIONS BY ORGAN SYSTEM - Specific recommendations pertaining to each organ system are found on the [AIRP Case Submission](#) main page. Click on the organ system that matches your case for detailed information regarding acceptability of cases.

SPECIFIC REQUIREMENTS FOR AIRP CASE SUBMISSION

(Below is a detailed description of AIRP case requirements.)

ONLINE REQUIREMENTS:

Case Data Entry

Students will need to provide requested information and respond to the following questions under the Case Data Entry section:

- Organ System, Organ Location, Organ Distribution
- Diagnosis/diagnoses and findings (Use drop-down menu.)
- Specimen ID number/surgical pathology numbers on all slides to be submitted
- Patient's gender, race, age
- Pathologist's name, phone number, fax number
- Contributing hospital's name and address to be used to return pathologic material
- Do you have plans to publish this case?
- Has this case been previously published? If yes, please list journal references.
- Clinical summary ([see example](#))
- Operative summary ([see example](#))
- Pathology summary ([see example](#))
- Gross pathology summary ([see example](#))

**Note: Summaries should NOT be "copy and pastes" of reports. Students must actually summarize the reports and note pertinent findings.*

Helpful Hints for Completing Case Data Entry:

- For long summaries, it may be helpful to enter information first into a Word document, then click and paste your summary into the required fields.
- Be sure to "Save" your work frequently during the data entry process.
- You must click Error Check to execute validation checks, and pass all validation checks before you can print the Case Data Entry form or submit your case package.

Students must PRINT a copy of the completed Case Data Entry page using the "PRINT" selection on the Case Data Entry page. This print-out includes the Consent/Verification form on the last page, which must be completed and SIGNED BY YOUR PATHOLOGIST (this is to confirm that the correct patient's pathology is being submitted), and brought to the course with the pathologic material (glass slides/paraffin blocks). NO PATHOLOGIC SPECIMENS WILL BE ACCEPTED WITHOUT THESE FORMS IN-HAND.

Upload Documents

Students are required to upload the following documentation in **PDF format**:

- The ORIGINAL Pathology report(s) OR autopsy report(s) OR if applicable, BOTH. The original pathology and autopsy reports contain important information, such as listing specimen number(s) as they pertain to anatomic site, types of stain, fixation, and other pertinent information about the individual slides. Our pathologists need to have this information in order to give a comprehensive review of your submitted slides.
- Operative report(s) OR procedural report(s) OR if applicable, BOTH
- Radiology report(s)
- Discharge summary (OPTIONAL)
- For International cases: ALL documents must be translated into English.

Upload Images

- Radiologic: DICOM's – Please submit the **ENTIRE** study of all relevant radiologic images for review by AIRP radiologists
- Gross specimen: JPEG only
- Histologic: JPEG only (Histology images are RECOMMENDED - Remember, you are required to bring the actual glass slides, paraffin blocks, OR a DVD of virtual microscopy.)

RADIOLOGIC IMAGES:

Students are required to upload a minimum of one DICOM study for the radiologic images. **All radiologic images must be in DICOM format. If only hard copy films are available at your institution, these films must be digitized and saved in a DICOM format. We will not accept radiologic images in the form of JPEG or TIFF files for the Upload Images portion of case submission.** DICOM studies may be uploaded in any order.

If a student is requesting a CD of the DICOM studies from a PACS administrator or digital library (versus directly getting the DICOM files from a network), the following procedures and information may be helpful:

- Request in anonymized format. We realize that the ultrasound images contain patient information burned-into the images, and there is no easy solution for anonymization. We would like you to submit the entire study in the "Upload Images" section. Your PACS administrator should be able to anonymize all other DICOM images for you.
- Copy entire study content from CD to desktop or local hard drive **before** you start uploading to the online case submission.
- Make sure you are connected using a WIRED LAN, as opposed to a wireless connection.
- For each DICOM study, note how many series are contained within that DICOM study
- For each DICOM study, note the total number of files for each DICOM series within that DICOM study.

- Recording the total number of DICOM series per case, and recording the total number of files in each DICOM series may better ensure that all files are uploaded, as intended. The CDs can also serve as a helpful record of the DICOM studies uploaded as radiologic images.
- For LARGE studies, upload files in smaller batches.

It is the student's responsibility to make sure that the TOTAL NUMBER of files received by AIRP for each DICOM series is, indeed, the total number of files intended to be uploaded for the case.

The AIRP Case Package web application is only able to report the study name as taken from the DICOM metadata and the number of files received for each DICOM series.

Helpful Hints for Uploading DICOM images to the online case package submission:

GROSS SPECIMEN IMAGES:

Gross specimen images are required for each case. Cases without gross specimen images must first be given a gross waiver/exception by the section head of that organ system in order to be acceptable, and AIRPCasePackageHelp@acr.org must be sent a copy of the email. (See list of section heads with email addresses on the last page.) Gross specimen images must be oriented to correlate the gross morphology of the disease with the radiologic findings. Images of the resected specimen or an autopsy are best suited for this purpose; however, intra-operative, endoscopic, bronchoscopic, laparoscopic or arthroscopic images are also acceptable. Gross images taken with a digital camera are only acceptable when taken at full resolution using a 3-megapixel or greater camera (MINIMUM resolution required is 300 dpi). **Gross specimen images must be in uncompressed JPEG format. PowerPoint presentation submissions for gross images are not acceptable.**

HISTOLOGIC IMAGES (Recommended)

Digital histologic images are not a substitute for actual pathologic material. Students who are unable to bring pathologic material or virtual microscopy on a DVD, MUST REQUEST A PATHOLOGY WAIVER, as stated in the "Pathologic Material" section below. Students can optionally upload digital histologic images in JPEG format (minimum 300 dpi). **Histology images must be in uncompressed JPEG format. PowerPoint presentation submissions for histology images are not acceptable.**

Case Summary

For many years, the purpose of resident case submissions has been to provide material for lectures, research and publications. In addition, we are building a teaching case database as a resource for you and other radiologists. The success of this relies upon the quality and measure of your effort. We thank you in advance for your contribution to the future AIRP RadPath teaching case project, a valuable developing resource for the radiology community.

The Case Summary should include the following:

- **Clinical History** – Patient demographics, chief complaint, and pertinent history. (Limited to 1000 characters of text.)
- **Representative Images** – **This is the critical component to a successful case summary.** All images must be anonymized and completely free of patient identifiers, such as the patient's name, date of birth, social security number, medical record number, specimen/surgical pathology/autopsy numbers, exam number, and hospital name.

Radiology Images: Two identical sets of representative JPEG images are required that best illustrate features of the disease. The first set of images should be free of annotation and the caption should state only the imaging modality (and appropriate sequence, if applicable). The second set of identical images can be created using the "Annotate" tool provided. Use the arrows, circles, etc. to indicate the pertinent radiologic findings. Captions should describe the annotated findings. Please include all appropriate imaging modalities in your submission. It is optimal for imaging planes to match gross images to best appreciate radiologic-pathologic correlation. When possible, radiographs should have images from more than one plane. US should include gray scale and Doppler. CT should have appropriate windows, sometimes multiple windows for the same image slice. MRI should have at least one image depicting appropriate sequences such as T1, fluid sensitive sequence (T2 or STIR), pre- and post-contrast, etc.

Gross Pathology Images: JPEG format - All specimen numbers must be removed. Two identical sets of representative JPEG images are required, ideally illustrating the features of the radiologic studies. The first set of images should be free of annotation and the caption should only explain orientation or sectioning plane. The second set of identical images should be annotated with markers (i.e., arrows, circles, etc.) indicating the pertinent pathologic findings. Captions should describe the annotated findings.

Histology Images: JPEG format – All specimen numbers must be removed.

Correlative Images: JPEG format (one or several images) – These annotated images should optimally demonstrate the radiologic-pathologic correlation. Only annotated images are needed in this section.

(See examples in the Case Summary section of the case package submission to use as a template for your case.)

DISCUSSION

- **Diagnosis** – Please provide the final diagnosis.
- **Differential Diagnosis** – Please list at least 2 or 3 other diagnostic possibilities. (This information will automatically copy from the Case Data Entry section.)
- **Demographics** – Please provide a short description of typical location and age/sex/race predilection for this disease (2-3 sentences is usually appropriate).
- **Imaging Characteristics** – Please provide a short, concise description of the typical radiologic features of this disease (2-3 paragraphs is usually appropriate).
- **Pathology** – Please provide a short description of the typical histologic and gross findings of this disease (2-4 sentences is usually appropriate).
- **Treatment** – Please describe the current treatment approaches of this disease (2-4 sentences is usually appropriate).
- **Prognosis** – Please provide a short description of the current prognosis of this disease (2-4 sentences is usually appropriate).
- **Literature References** – Please list 3-5 literature references.

Submit Case Package

Upon selecting, “Submit Case Package,” the student will be asked, “Are you sure you want to submit?” After responding “Yes,” an acknowledgement will be made that the case package has been successfully submitted. CASE PACKAGE SUBMISSIONS ARE FINAL. Students may not make any changes to the case package after submission.

You may log in to your case anytime to access the Case Data Entry section to PRINT a copy of the Case Data Entry Form, which includes the Consent/Verification Form. This must be completed and signed by your pathologist when receiving pathologic specimens. All pages must be brought to the course.

CASE REQUIREMENTS TO BE BROUGHT TO THE COURSE:

PATHOLOGIC MATERIAL – In the form of glass slides or paraffin blocks (*See collection schedule on the first page.*)

Original or recut histologic material (glass slides or paraffin blocks) must be brought to the course FOR EACH CASE. At least one representative slide is required, prepared according to the standards of your pathology department. Slides must be properly secured in a transportable slide container, and accompanied by a print-out of the AIRP Case Data Entry page, and a copy of the Consent/Verification form, completed and SIGNED BY YOUR PATHOLOGIST. **These forms are only available to be printed within the case package, by selecting PRINT in the Case Data Entry section, after entering data and uploading a pathology report. NO PATHOLOGIC SPECIMENS WILL BE ACCEPTED WITHOUT THESE FORMS. All specimen ID numbers must match the number on the pathology report in order for the case to be acceptable.**

FOR INTERNATIONAL STUDENTS: The Verification/Consent form states the purpose and intended use of the pathologic material, which may be helpful for those who are flying internationally. We recommend packing your pathologic material in your checked baggage, and present the Verification/Consent form if any questions are asked.

VIRTUAL MICROSCOPY: We will accept a DVD of virtual pathology slides to be submitted at the course in place of pathologic slides. A virtual slide is a digitally captured glass slide which is comprised of high-resolution images which can be navigated and viewed with various magnifications.

For more information on virtual microscopy and slide-scanning services, please visit the following websites:

- [Olympus Virtual Microscopy](#)
- [Aperio Digital Slide Scanning Service for Education](#)
- [Flagship Biosciences Microscope Slide Scanning Service](#)

Students who are not able to bring pathologic material or a DVD of a virtual microscopy MUST request a pathology waiver from the appropriate AIRP section head (see list with email addresses on last page). This is a separate request from a gross image waiver. Some students are granted a waiver for gross images but are still required to bring in pathologic slides. If an exception/waiver for pathologic material is granted, the email from the AIRP section head should be uploaded with the path report, and histologic images must be uploaded electronically using the histologic uploader in the “Upload Images” section of the case package.

ADMINISTRATIVE REVIEW OF CASES

In the weeks prior to the course, cases will be reviewed by AIRP personnel to ensure all online requirements have been met. Case Summary images will be checked to ensure that all patient and hospital identifiers and specimen ID numbers have been cropped from the images, and that a second set of images with arrows has been provided. Documents will be checked to insure all patient identifiers have been removed, except the specimen ID number, which must appear on top of the pathology report. If a problem is found, the student will be notified by email, and given access to correct the case. For complete, acceptable cases, no further correspondence will be issued.

REVIEW BY SECTION HEAD

After a case package is electronically submitted to AIRP and passes administrative review, it may be rejected by the AIRP section head if it is found to be lacking in quality or material. Students will then be required to re-submit the sections of the case package that were deemed insufficient. **Program Directors will be notified of rejected, late, or incomplete cases.**

CASE PACKAGE HELP

Help with case questions and technical assistance is available by email at:
AIRPCasePackageHelp@acr.org.

AIRP Section Chief Contacts

Specific recommendations pertaining to each organ system are found on the [AIRP Case Submission](#) main page. Further questions regarding acceptability of cases and requests for gross or pathology waivers:

CARDIOVASCULAR

DR. ALETTA FRAZIER: AFRAZIER@ACR.ORG

CHEST/PULMONARY

DR. JEFFREY GALVIN: JGALVIN@ACR.ORG

GASTROINTESTINAL

DR. RACHEL LEWIS: RACHELLEWIS@ACR.ORG

GENITOURINARY (Includes Retroperitoneum)

DR. GRANT LATTIN: GRANT.LATTIN@USUHS.MIL

MAMMOGRAPHY

DR. LEONARD GLASSMAN: LEONARDGLASSMAN@HOTMAIL.COM

MUSCULOSKELETAL

DR. MARK MURPHEY: MMURPHEY@ACR.ORG

NEURORADIOLOGY/HEAD AND NECK

DR. ALICE SMITH: ALSMITH@USUHS.MIL

PEDIATRICS

DR. ELLEN CHUNG: ECHUNG@USUHS.MIL