Implementation of Resident Sign Out with Functions to Compare Resident and Attending Reports

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BACKGROUND

In many pathology residency programs, the resident report is electronically passed on to the attending pathologist for final edits and sign out. Most anatomic LIS systems lack a formal resident sign out procedure and lack an archive of resident reports. It is difficult for trainees to compare their interpretation to the attending interpretation unless manual steps were taken to print or save a copy of the resident report for future review.

PROJECT AIM

Learning what has changed between resident sign out and attending sign out is a great learning opportunity that is missed in most anatomic pathology programs. To address these issues, we established an efficient system for residents to maintain a record of their interpretation in addition to allowing very efficient report comparison and review.

PROJECT DESIGN/STRATEGY

A resident sign out process was implemented to allow full capture of the resident report without impacting the traditional case sign out process. Custom software was designed to interact with our anatomic LIS (PowerPath, Sunquest; Tucson, AZ) to store a mirror copy of the report at "resident sign out". The resident is prompted with confirmation dialogue boxes which emulate the traditional attending sign out. In addition, there is an option to flag a case for resident review which can be triggered by either the resident or attending.   This allows retrospective analysis of selected cases by the resident for targeted review.

CHANGES MADE & RESULTS

Tools were designed (Fig 1,2,3) to allow direct comparison of the resident report (Fig 4) to the attending report (Fig 6). The output is a fully integrated report which shows what has changed between versions (Fig 5). This allows residents to quickly review exactly how their version of the report differs from the attending report.

Fig 1&2. Residents sign out the case on surgical path rotation
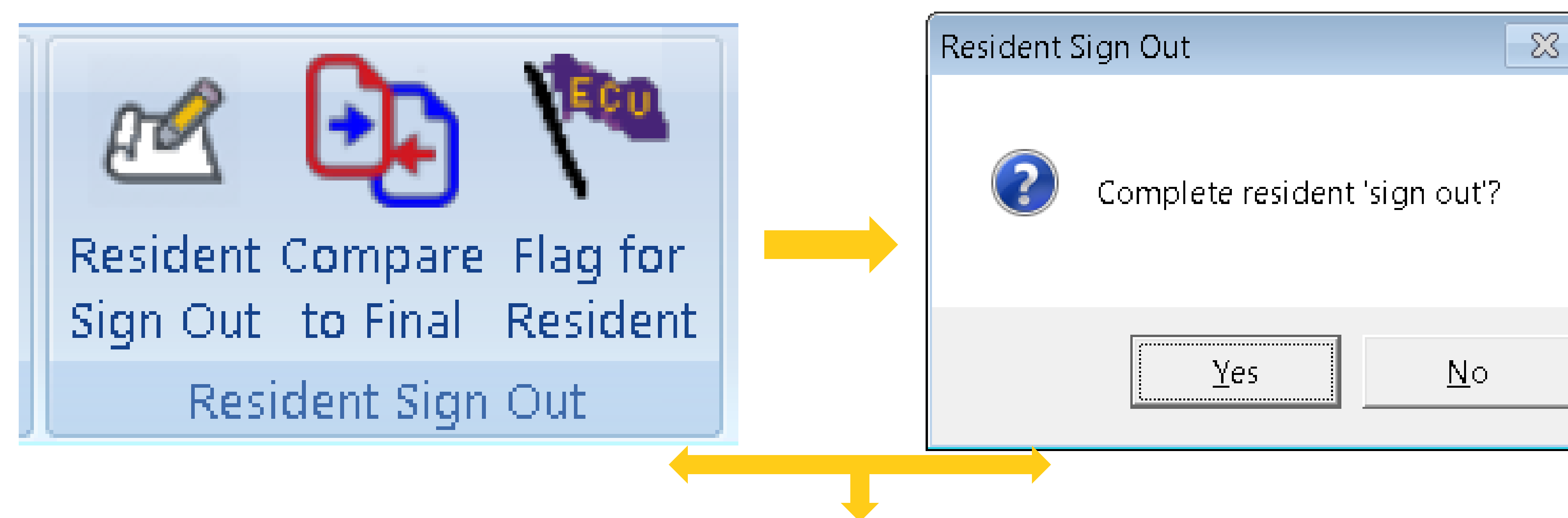
Residents compare their report to final report at anytime after case sign out
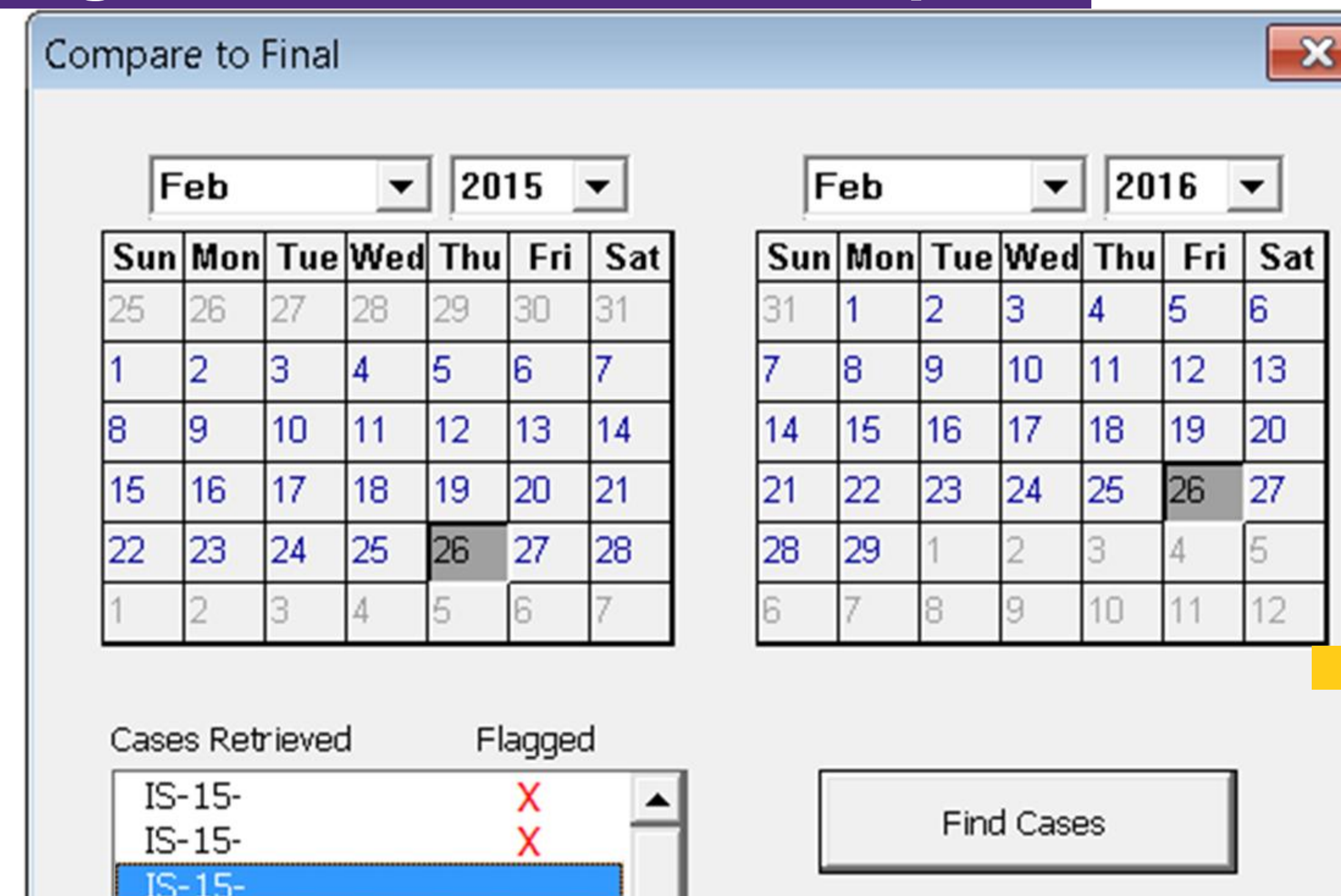
Fig 3. Search cases in the past

Fig 4. Original resident report

FINAL DIAGNOSIS:

A.   Thrombus, left lower extremity (thrombus left femoral):

Laminated fibrin and blood elements, consistent with recent thrombus.

MICROSCOPIC: Microscopic examination is performed.

(Resident)

GROSS DESCRIPTION: The information on the requisition form, on the specimen container label, and entered into PowerPath has been reviewed and verified to match.   The surgical pathology number is confirmed as   . The specimen is received unfixed labeled as

Fig 5. Resident report with attending's corrections highlighted

FINAL DIAGNOSIS:

A.   ~~Thrombus~~Blood clot, left ~~lower extremity (thrombus left~~ femoral): artery, thrombectomy:

1.   Laminated fibrin and blood elements, consistent with recent thrombus.

2.   A portion of vessel intima with atherosclerosis and attached organized thrombus is also seen.

MICROSCOPIC: Microscopic examination is performed.

(Resident)

GROSS DESCRIPTION: The information on the requisition form, on the specimen container label, and entered into PowerPath has been reviewed and verified to match. The surgical pathology number is confirmed as   . The specimen is received unfixed labeled as   , "thrombus left femoral" and consists of multiple

Fig 6. Final version of the report

FINAL DIAGNOSIS:

A.   Blood clot, left femoral artery, thrombectomy:

1.   Laminated fibrin and blood elements, consistent with recent thrombus.

2.   A portion of vessel intima with atherosclerosis and attached organized thrombus is also seen.

MICROSCOPIC: Microscopic examination is performed.

(Resident)

GROSS DESCRIPTION: The information on the requisition form, on the specimen container label, and entered into PowerPath has been reviewed and verified to match. The surgical pathology number is confirmed as   . The specimen is received unfixed labeled as

DISCUSSION

➢ The resident sign out tool allows residents to gain experience committing to an "electronic signature" in a setting which emulates the real case sign out procedure.

➢ The retrospective review allows residents to refine their diagnostic reporting skills by quickly highlighting changes between the resident and attending reports.

➢ The case flag function can also be used to highlight cases that have interesting findings or as a method to select cases for a teaching set.

➢ These are useful tools which facilitate resident education and provide skills which help residents transition to the attending practice environment.

➢ Future analysis may include aggregate comparison of resident reports by year to compare the number of changes based on resident experience.

REFERENCES

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