PENRAD AND PENTRAC VERSION 7.0 UPGRADE
Quick Read

The following pages include additions and requests from our users.

PenRad
Read. Report. Track. Manage.

penrad.com

Solutions for productivity and revenue optimization in radiology workflow

ADMINISTRATIVE REPORTS Updated administrative reports based help, and individual report help. Added restrictive administrative report system, allowing staff to access their own reports without master or special passwords. Expanded all reports with zone filter capabilities, allowing various combinations and overlapping facilities. Added "Right click" support providing direct access to patient record. Added automated report macros for what to Run Before MQSA Audit and running the MQSA Audit. Expanded available reports and added expanded filtering, sorting, and export capability.

ADVANCED SPECIALS Added custom macro capabilities allows saving of common phrases. Added preferred BI-RADS terminology with hide option. Added ability to specify clock interval at ":30". Added ability to further refine location, in the; biopsy cavity, lumpectomy cavity, surgical site. Added "Non-calcified fat necrosis" and "Calcified fat necrosis" in Surgery Items. Added "Vitamin E" as skin marker type to Markers category. Added in Resolved "due to tomographic imaging" as reason. Added to No Correlation "No visible finding" for no imaging findings. Added "Due to HR patient" as US and or MRI imaging reason recommendation "due to patient's personal high risk breast cancer value".

ALTERNATE READER OPTIONS Removed second read requirement on Mammo where BI-RADS is BX Marker.

APPROVE SCREEN Added ability during full preview to view patient letter. Added ability to reorder reports in combined studies. Added option to require overall BI-RADS code for combined imaging exams suppressing individual codes by exam. Added ability to select a custom teaching reason. Added option to include custom patient exam message. Added a restricted recall system option that suppress recall intervals based on screening, diagnostic or procedures.

AUTOREADER AND PENTRAC Modified AutoApprove to "skip" exams where tracking information is incomplete. Added support for consultation exam, physical breast exam, and skin punch exam. Terminated added for procedure types. Added CESM as exam modifier for MG. Added complete and limited selector, and screening classification for US exams. Added breast "Density n/a" for MG and MRI. Added option to incorporate a patient exam letter message. Added capabilities to locate patient and filter list by radiologist.

BATCH PRINT SCREENS Added Right click on patient name to provide direct access to various sections of patient record. Added Fax/Email Log button to view faxes, and or emails. BI-RADS value column and preview of exam.

BONE DEXA Created report templates with DICOM import to automatically filter individual scans and use regions (L1-L4) for example. Created 8 different formatting templates. Expanded template logic to insert various findings and impression "trigger" statements based on values. Disease and Medications categories added and expanded Risk Factors selection.

CLINICAL REPORT GENERATION
Expanded system to allow radiologists to produce comprehensive reports facilitating multiple sequential procedures into common report, versus independent singular reports based on the limitation imposed by RIS/HIS system. Facilitates combinations for example; MG and US, biopsy with post imaging and specimen, multiple biopsies same report, etc.

CLINICAL TEXT Added display of clinical text on exam screens, and to import medical and risk summary into report.

COMBINED EXAMS Added on Approve, Procedure select, and PreExam screens, ability to reorder reports, other than initial exam. Added option to require overall BI-RADS code for combined imaging exams, hiding individual codes by exam.

COMPARISON AND PRIOR IMAGING Incorporated dose accumulation calculation for reference and dose by exam. Added display of teaching reason in report review grid, and right click to edit training reason. Added separate buttons to print exam and or letter independently. Added imaging button to record EQUIP concerns and resolution.

DENSITY PRESELECT For facilities without prior history of patient breast density to preselect (clone) the option exists to preselect by age. Age look-up table selects dense < 40, hetero < 50, scattered <60, fatty >=60.

PenRad™
Read. Report. Track. Manage.

penrad.com

Solutions for productivity and revenue optimization in radiology workflow

DICOM Added ability to import, process and display density report for Volpara, iCad and Hologic to preselect breast density. Added ability to import and store mGy dose from DICOM SR.

EMAIL PATIENT Added ability to email to patient, narrative report in addition to exam letter (some states require patient receive exam). Expanded letters sent to include additional detail on emailed correspondences.

EMAIL PHYSICIAN Added option to email narrative report to physician and CC physicians for those outside RIS.

EMAIL AND FAX LOG Simplified filtering and added preview of document, resend and print capabilities.

GUDID SYSTEM Added to collect serial numbers of implanted devices, include in report, track, and submit to FDA.

HELP SYSTEM Individualized help file for each screen, and for each administrative report added.

HIDE ITEMS ON SCREENS Added direct hide capability of items on exam screens to allow customization by radiologist by tapping Set Default button. Set Default screen facilitates default, multiple macros and hide.

HIDE NON-BI-RADS TERMINOLOGY The option to hide non-BI-RADS terminology by individual radiologist or globally.

HISTORY SHEET Added ability to exclude breast cancer risk calculations and number of years of prior exams printed.

HL7 INTERFACE Added capabilities where patient has multiple medical record numbers (due to consolidations), to match on MRN, alternate MRNs and DOB and by location code. Added capabilities to populate custom fields per customer requests, references to; BI-RADS value, next recall date, etc. in outbound message. Added option to AutoRoute from EMR's pathology report to biopsy exam, pathology exam and autoreader, for review and incorporation. Added flexibility for multiple interfaces to send to different EMR with different formats. Added flexibility after 3 attempts with EMR to move to next message. Added ability to outbound message to strip prefixes on accession numbers.

INSURANCE Added Effective Date field to patient insurance screen.

MAMMOGRAM CESM Added complete sub system to capture items for Contrast Enhanced Spectral Mammogram.

MAMMOGRAM DETAILED Added preferred BI-RADS terminology and one-step process to hide non-preferred. Added display of Clinical text, ability to edit and import. Added various tomo spot views as recommendations in BI-RADS 0. Added ability to repeat breast density following BI-RADS code. Added ability to incorporate independent statements into narrative report based calculated risk values. Expanded DICOM interface, offering preselection of density, review volume, exact percentage, etc. Added change modifier "represents change". Added generic "core biopsy" for BI-RADS 3. Added imaging button to record EQUIP concerns. Added procedure button to incorporate additional exams in study. Added nipple distance sliders.

MAMMOGRAPHY IMAGING Expanded support for up to 20 separate modalities. Added ability to capture mGy dose and to record EQUIP concerns. When exam modifier "CESM" used (Contrast Enhanced Spectral Mammogram), CESM button appears allowing capture of blood work, injection contrast and reaction information, and importing information into report.

MAMMOGRAM NEGATIVE Added preferred BI-RADS terminology items, and option to hide non-preferred BI-RADS terminology. Added by request; fat necrosis, all findings stable, implant present, and fibrocystic change. Added option to repeat breast density following BI-RADS exam code.

MEDICAL AND RISK HISTORY Expanded relative selection tree. Modified risk assessment engines to provide instantaneous updates. Added automatic update of risk items from breast history records and pathology exams, to reflect biopsy history (atypical hyperplasia, hyperplasia, LCIS, etc.), for breast cancer risk calculators.

PenRad™
Read. Report. Track. Manage.

penrad.com

Solutions for productivity and revenue optimization in radiology workflow

MODIFY AND DICTATE Expanded ability to insert phrase directly from list located on the Modify and Dictate screen.

MQSA EQUIP SYSTEM Added system to record and track to resolution poor imaging quality. Review by radiologist can be facilitated real-time or in batch mode.

MRI Added nipple distance sliders. Added "Screening" modifier (for statistics), additional margin and enhancement specifiers, and contrast types. Added imaging button to record EQUIP concerns. Added clinical text display window. Added procedure button to incorporate additional exams in study.

NAVIGATOR Added "Genetic testing".

NOTES Added option that disables Delete button on notes screen for all users and user types. Added "View Clinical" button to view prior clinical.

ORDERING PHYSICIANS Added ability to "start" with exam doctors, then alter at the exam level via CC doctor button on Preliminary exam and PreExam. This maintains the "base" doctors for patient. Doctors displayed on patient maintenance are "breast" based. Facilitates Dexa orders separately from breast ordering physicians.

OTHER LANGUAGES Expanded terminology for patient exam and recall/reminders for recall type and interval, etc.

PATHOLOGY Added initial and secondary/repeat biopsy physician, repeat reason, and complications if applicable. These new fields bind data for ACR US and Stereotactic biopsy audit report. Added multiple pathological findings. Added for NCI stage calculation; T1mi, N1mi, N2a, N2b, N3a, N3b and N3c, and stages 1A, 1B and 3C. Added value recording of Post treatment; ypT, ypN, snN, ypM and Pathological pN. If pathology report interface (HL7) is available, report can be viewed and pasted into biopsy or path report. Added "swap" button to automate initial and secondary pathology, to report as statistical or ancillary. Added neoadjuvant start/end date/time for reference.

PATIENT EXAM LETTER OPTIONS Added multilevel patient exam letter messaging based on risk values. Added option to consolidate patient's exam letters, if other exam letters have same recall type and interval during batch print.

PATIENT LIST Added ability to search by accession number on patient list - type @ in front of search string and looks for patient. Added "sounds like" selector for patient name search. Added column to display current active tablet password.

PATIENT MAINTENANCE Added last known breast density to automate modality scheduling. Added Education level and Ethnic selectors, and expanded Marital status selections. Added forms button to select macro sets and sent to tablet. Added access to device implant system for addition of implanted and explanted devices for FDA GUDID requirement. Interacts with biopsy and localization procedures to record GUDID numbers.

PATIENT MESSAGE Added option to include in patient exam correspondence a custom patient message. Access is offered on Preliminary exam, PreExam, AutoReader, tracking only screens, and Negative and Detailed approve screens.

PATIENT PORTAL API AND RESULT LETTER Added API, to provide access to obtain and update patient medical and risk information. Added patient letter to file option for presentation in patient portal.

PENTRAC Added "CESM" modifier for MG exams. Added Complete, Limited modifiers for US exams for separation of statistics. Added Screening modifier to US and MRI exams for separation of statistics. Added Terminated selector for biopsy procedures. Added breast "Density n/a" for MG and MRI exams. Added Skin punch, Consultation and Physical breast exam tracking. Added "Sounds like" for patient name search.

PenRad™
Read. Report. Track. Manage.

penrad.com

Solutions for productivity and revenue optimization in radiology workflow

PRE-EXAM ADDITIONS Updated PreExam screen to eliminate clicks. At a glance, all known information is visible.
The center grid displays previous reports and events chronologically.
To include comparisons (if not preselected via the autoselect compare option) click selector next to date.
Above the grid, specialized compare phrase selectors are positioned.
To access custom compare phrases, tap Comparison & Prior button (right). Selected items are then displayed within grid.
To preview a report for PeerReview (indicated by PR, N/A not applicable, RE re-edit) tap the button next to report.
To preview a report, tap on the report to view. Note the report appears in a separate float screen.
Multiple reports can remain open during interpretation, just move to side.
Float screen size and position reopen where closed last.
Open float screens will close automatically when exam is approved or suspended.
The Medical Risk History column (left) displays expanded patient info and risk values, and family breast cancer info.
Tap Persist Risk View button to have clinical risk summary float screen visible during interpretation.
Option is offered to create "red" and "yellow" alter values for set point values for Tyrer Cuzick and BCRA.
Button array (right) is provided for selecting exam, and adds parallel function ability to old PreExam screen.
With the AutoNext feature (tapping the AutoNext on exam schedule), if mammo exam, enter key opens negative mammo, and automatically selects next exam with exam is approved.
If PenRad integrated with Hughes Risk System, tap the button to review report.

PRELIMINARY EXAM Added option to require review/confirmation independently; doctors, medical/risk information.
Added "Pending priors" and "Technical issues" reason for delay, allowing "delayed" to be excluded in turnaround reports.
Added "Complete", and "Limited" modifiers for ultrasound studies, and "Screening" for separation of statistics.
Added "Screening" modifier for MRI studies for separation of statistics.
Added exam modifier "CESM" (Contrast Enhanced Spectral Mammogram). Allows data collection of blood work, injection contrast and reaction information to be incorporated into mammography narrative report.

PRINTING AND ARCHIVAL Added option to remove the dependencies of Microsoft Word; printing, formatting, and PDF generation. PDF can be stored in database for immediate retrieval, and if desired sent to; PACS, EMR, and patient portal.

PROCEDURES Added nipple distance sliders. Added Skin Punch exam. Added devices, and dedicated workstation phrase (for payment). Added imaging button to record EQUIP concerns. Added clinical text display window Added procedure button to incorporate additional exams in study. Added to MRI bx, ability to specify contrast and volume, when biopsy not conducted with original imaging exam. Added GUDID system to record implanted device serial numbers for FDA. Serial numbers incorporated in report.

RECALL DATE Added option to automatically compute and include the recall date following the recall type and interval statement to aid in compliance where regulations require more than "A mammogram in 1 year is recommended".

RECALL/REMINDER LETTERS Added ability to right click on patient name on print list to access various functions like preview of letter. Added option to produce "immediate" follow up recall letters (x) number of days after exam, if the exam is not resolved, or patient has no appointment or order within (x) days, or currently does not have an exam on worklist. Expanded "smarts" not to create recall/reminder letter if patient has an order or appointment within (x) days of recall date, and then create letter if scheduled order or appointment was not fulfilled. The AutoSelect recall/reminder letters option automatically sequentially sends letters to patients, reducing possible liability.

REGISTRY Added NMDB 3.0 report.

RESOLVE Added ability to draw from a common custom list the reason for exam resolution. Added option to AutoResolve screening mammogram with BI-RADS0 when followed diagnostic MG or US exam within 10 days. Added option to allow other than master user and/or radiologist to resolve exams.

RESOURCE VIEW ONLY OPTION Added option for a radiologist's resource only screen. Provides preview of; previous reports, patient medical/risk items and values, and offers PeerView capabilities. When narrative report generation is other than PenRad. Resource screen can be synchronized with softcopy. Typically tracking is provided by AutoReader.

RIS LIST Filters by exam type, and display options for location and breast density. Added status system, supports filtering for workflow staging; dressing room, ready to image, etc. Right click support for tablet forms selection. Hover over patient name to show complete grid row contents including patient tablet passcode. Added reset ability for orphan exams when network disconnect during preliminary exam, and reset for canceled exams when reordered as changed (upgrades, R/L).

RISK ENGINES Converted BCRA and Tyrer Cuzick risk assessment engines to services. Offer instantaneous calculation as items added. Incorporated TC v7.2. and v8. Display of BCRA and TC values on PenTrac screen where added.

SAVE LAST USED LOCATIONS Ability when opening preview screens for help, exams, clinical summary, and application window size and monitor location by logged in user, and by the workstation.

SCHEDULE Added hover over patient name to show complete contents of grid, including tablet passcode. Modified status change to allow "complete" to be toggled to "complete held" and back. Saves as a hold to show surgeons. Will not be printed, or removed from schedule. Added Density column to display last known breast density. Added Right click on patient name for assignment of; memo/color, radiologist, and direct access to patient record. Also, short-cut to create new exam, and exam info selection to view individual exams incorporated in study, plus referring physician contact info.

SCREEN SCALING Expanded scaling to facilitate higher resolution monitors and tablets. Added ability to change on the fly display area used admin reports.

SEND TO PACS Added option to automatically send history sheet or custom form to PACS as exam is added to schedule. Offers radiologist ability to view during interpretation where PenRad is used for tracking only. Added option to automatically send PDF of completed exam and patient letter, and history sheet or custom form to PACS.

SOFTCOPY SYNCHRONIZATION AND AUTOMATION Added various options to format synchronization messages for dissimilar systems. Added options to send message to PACS as exam is approved (PACS work list can indicate study read). Also separate message as exam is committed with screening or follow-up recall, so images can be purged, leaving images for returning patients on viewer.

SPEECH RECOGNITION Added SpeechAnyWhere and PowerScribe 360 support.

TABLET FORMS Added various forms for patient management and care. Added Macro Form Sets to preselect appropriate forms automatically forward to tablet for patients update or refresh. Added help screen support.

TEACHING REASON Added ability to specify custom categories for selection when flagging exam as teaching.

ULTRASOUND Added preferred BI-RADS terminology and one-step process to hide non-preferred. Added display of clinical text and ability to edit and import. Added screening, complete and limited modifiers to separate statistics. Added refined scanning region selectors for quadrants, individual clocks, and supraclavicular. Expanded lymph node descriptors. Added ability to specify finding as index or satellite, and distance from index. Added preview report button on main screen. Added clinical text window and edit capabilities. Added imaging button to record EQUIP concerns. Added procedure button to incorporate additional exams in study. Added nipple distance sliders.

ULTRASOUND IMAGING Expanded support for up to 20 separate modalities. Added ability to specify scanning method and targeted or regions scanned, macros, and automatically transfer to the ultrasound exam for radiologist.

WINDOWS AND LDAP LOGIN Added LDAP authentication support.