InteleOrchestrator Administrator Training

Day 1

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18.11.2024

Today's Agenda- Morning

01 **Smart Worklist Overview**

02 **How the Worklists Come Together**

03 **Managing Exams**

Today’s Agenda- Afternoon

04 **Managing Users**

05 **Automating Workflows**

Smart Worklist Overview

The Radiologist’s Perspective

Smart Worklist Overview

Improve efficiency by ensuring relevant exams are reported by the most appropriate radiologist within a defined SLA time

Making sure the right radiologist reports the right exam at the right time

Delegate concierge tasks easily

Remove the time it takes for a radiologist to decide what to report next

Use the Analytics module to review workflow efficiency and refine processes

Enable radiologists to report out of auto-next mode with confidence

Display productivity gauges so radiologists receive real-time feedback as to how they and their practice are tracking

Smart Worklist Overview

https://workflow.imagingassociates.net.au

Demo

InteleOrchestrator from the Radiologist's Perspective

Smart Worklist Overview

Navigating the worklist page

Smart Worklist Overview

Worklist Pages

- **Search Options**
  - Advanced Search, Quick Search, Worklist Search
  - History Panel
  - Creating a worklist

- **Worklist Tree**
  - My Worklists
  - Enterprise Worklists

- **Patient View**
  - Auto-Next
  - Document Viewer

Smart Worklist Overview

Customisations of user profile

- Column selection & layout
- Resizing of panels
- Application theme and orientation

Auto-next

- Skip and Next
- Optimiser options
- Pause and add exam to queue

Actioning multiple exams

- Use the check box to select multiple exams
- Click the assignment column to batch-assign
- Click the Actions column for all other actions

Document Viewer

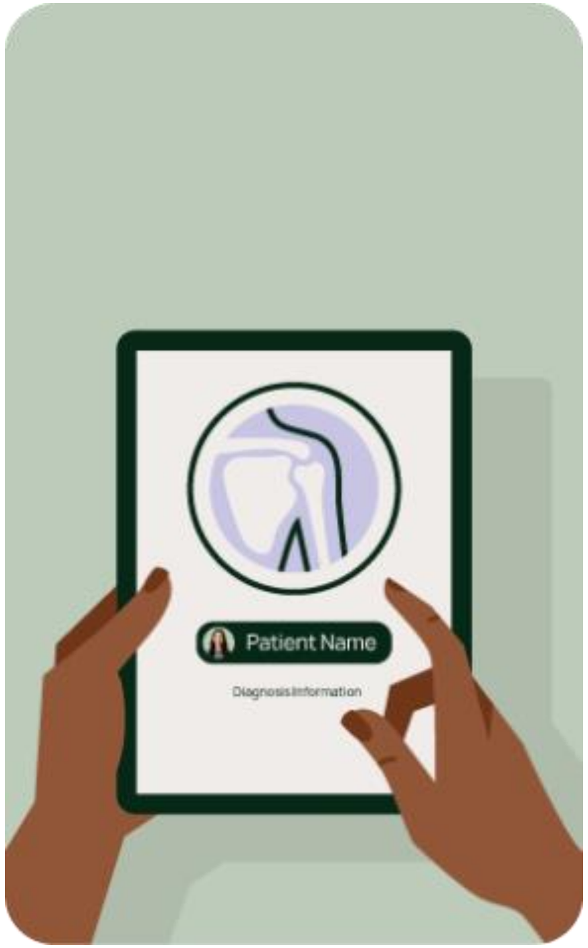
- Split view vs. Single page
- Global setting for default document type
- Pop-out option

Auto-next optimiser does not re-sort the worklist. High priority exams will override the settings of the optimiser, as will exams with a negative time-remaining

Smart Worklist Overview

Subscribe exam

- **Option for pre-caching images in the PACS**
  - Subscribe only vs. Subscribe and Assign backend config
  - Consider which option makes more sense depending on worklist configuration (shared worklists)
- **Subscribe in Auto-next**
  - Allows the radiologist to easily subscribe to an entire worklist
  - Set caching interval and number of exams



Smart Worklist Overview

Worklist Design Best Practices

Smart Worklist Overview

Worklist Design Best Practices

- Most urgent exams in a worklist at the top of the queue for several shifts (to ensure visibility). This could also be activated when a certain threshold is met

- Assigned to Me for procedures, or site-specific work

- Subspecialty exams, based on Radiologist skill, qualification, or preference

- General, less urgent work shared across multiple users

My Reading Queue

- Overflow worklist (optional)
- Urgent Unread
- Assigned to Me and My Groups
- Shift-specific Worklist
- My Subspecialty
- General Unread

Smart Worklist Overview

Summary

Smart Worklist

allows Radiologists to report for multiple entities (ie. different PACS and RIS) via a single worklist

Worklist Design

Need to consider the big picture, whilst also being mindful of day-to-day processes

Advanced Search

Used to create worklists, different search types available (Notes, Peer Review etc)

Iterative Approach

Radiologist buy-in and change management amongst users is very important.

Auto-next

Allows for batch-reporting from selected worklist (with optimisation options available)

Smart Worklist Overview

Relevant User Role Permissions

Smart Worklist

- Access to Worklist

Advanced Search

- Use Advanced Search (requires date range)
- Unlimited Advanced Search

Patient View

- Auto-next
- Document Viewer

Q&A

How the Worklists Come Together

My Reading Queue & Shift Management

Smart Worklist Overview

Worklist Pages

- **Building Worklists**
  - Combining worklists
  - Exclusion worklists
  - Creating time or threshold-based activation worklists
- **My Reading Queue**
  - Building MRQ
  - Sorting worklists
- **Shift Management**
  - Building a shift
  - Adding users
  - MRQ

How the Worklists Come Together

Key factors when building a radiologist worklist

What level of credentialing access is required for the intended user of the worklist?

Should incomplete Communication notes be excluded?

Should exams assigned to other users be excluded?

What are the relevant exam statuses required for this worklist?

How the Worklists Come Together

Suggested settings for creating general Radiologist worklists

- **Access: Final**
  - Ensures that the worklist will only present the radiologist with exams that they are credentialed to report
- **Assignment- User: Unassigned**
  - Enables filtering of exams that are assigned to other users from the worklist
- **Exclude Incomplete Communication Notes**
  - Issues that prevent a radiologist from reporting should be checked to enable the concierge workflow
- **Date range: none selected**
- **First sort order: Priority (Ascending)**
  - This will allow for the most clinically urgent exams to filter to the top of the worklist
- **Second sort order: Time Remaining (Ascending)**
  - This will allow the exams that are closest to breaching their SLA to be sorted to the top of their Priority grouping

Operations worklists

- **Access: None selected**
- **Assignment: None selected**
- **No exclusion of incomplete Communication notes**

These settings allow for the operations worklists to display an overview of all exams regardless of assignment or user View/ Final credentialing

How the Worklists Come Together

Combination worklists

- Useful for creating worklists with multiple assignments or time-remaining
- Only appear as single combined worklist in MRQ

Activation worklists

- Choose time/ day of week
- Selected time relates to the viewing user's time zone

Exclusion worklists

- Create a combined worklist first
- Right click to exclude exams from one worklist
- Eg. All Unread, excluding Dental subspecialty

Threshold worklists

- "calling in the troops" worklist
- Upper limit to activate worklist, lower limit to de-activate
- Don't set these values too close together!

Active counts can be enabled for display in MRQ (Management > Configuration > Worklist Tuning). To limit performance impact there is a user profile setting to restrict how many counts are active at once for a user

How the Worklists Come Together

Shift Management

Radiologist shift vs. Operations shift

My Reading Queue (exams)

My Support Queue (comm notes)

Active times for the shift

Default values for login times either side of the shift

Should access to the shift be restricted to a specific group of users?

Should subspecialty exams be assigned upon login?

How the Worklists Come Together

Summary

Enterprise worklists

Global worklists that provide the building blocks to create My Reading Queue

Worklist Groups

Folders, or buckets of Enterprise worklists. View and edit access permissions can be controlled

My Reading Queue

Curated radiologist reporting list built from enterprise worklists. Usually associated with a shift (but can also be built manually)

Scheduling

Shifts can be defined, edited and associated with worklists in the Shift Management pages

How the Worklists Come Together

Relevant User Role Permissions

Worklists

- Create worklists
- View Enterprise Worklists
- Create/ Edit Group and Enterprise worklists
- Assign Worklist Activations

Worklist Groups

- Access is defined in the Configuration pages

My Reading Queue

- Create My Reading Queue
- Global settings for MRQ are defined in the Configuration Pages
- Shift-specific sort and merge settings are defined in Shift Management

Scheduling

- Read-only access to Shift Management
- Access to Shift Management
- Application Section Schedule access
- Prompt for shift
- Require Shift Selection

Q&A

Managing Exams

Managing Exams

Procedure Management

- **“Procedures”**
  - Master set of normalised procedure codes

- **“Site Procedures”**
  - Every procedure code from every site will generate a site procedure entry
  - A site procedure that is mapped to a procedure will adopt the properties from the normalised procedure code.

- We can set a subspecialty for each procedure/site procedure code individually

- We can set an RVU or work unit value for each procedure/site procedure code individually

Key decision:

How will Site Procedures be mapped to the Master Procedure set?

- Manual upload of mapped Site Procedures
- Automatic mapping where Code and Name match in both Site Procedure and Procedure tables

Managing Exams
Organisation Management

- **Sites**
  - Usually individual clinics (or one site for the entire business - each clinic would then be a location)
  - Credentialing becomes more complex, but more flexible
  - Procedure Management also more complex but allows more granularity across clinics
- **Site Groups**
  - Assists with credentialing, worklist building, Peer Review
  - Sites can belong to more than one group
- **Locations**
  - Eg Ward 7, Oncology, OR-2

Managing Exams

Master Patient Indexing

- Purpose is to match patient records from multiple facilities and provide the radiologist with all prior reports regardless of which site they came from

- Matching can be automatic, recommended or manual
  - Matches will update the MPI number of the matched exam

- Note that the matches in the MPI are only within the InteleOrchestrator system and do not affect or change any other systems

- We can build worklists to monitor suggested matches

MPI default settings

Automerge enabled No

Suggested matches 95

Weightings

Date of Birth	35
First Name	20
Middle Initial	5
Last Name	35
Gender	5

Managing Exams

Master Patient Indexing

- 2 distinct processes
    - HL7 Listener configuration
    - MPI service

- HL7 listener will automatically match exams from select groups of sites where the Patient ID matches
    - ADT updates for a record from any site within this group will automatically update the patient record for associated sites

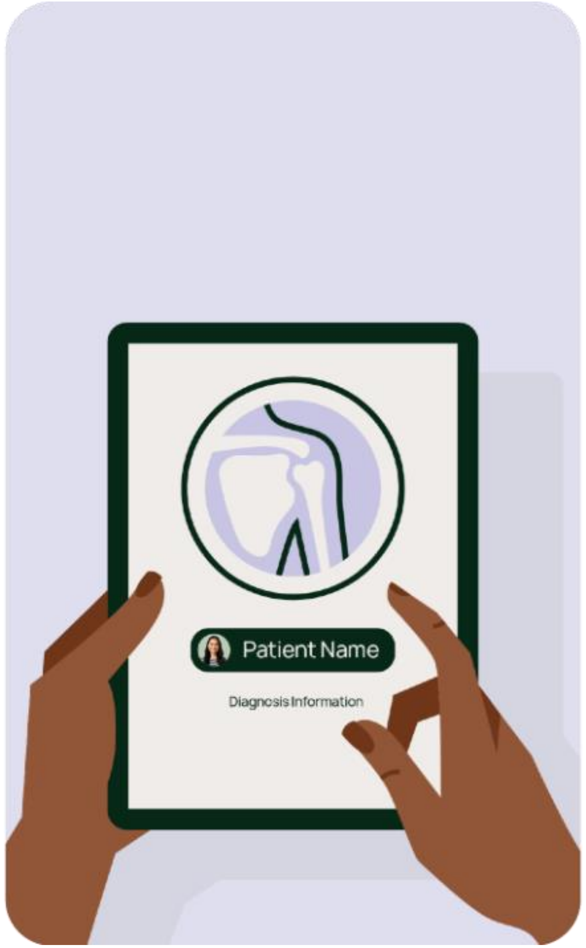
- MPI Service can be configured to present selected matches for patients where the Patient ID does not match
    - These suggested matches can be presented in a worklist for an admin to monitor and action as appropriate

Managing Exams

Combined Procedures

- **Settings to define whether exams are combined for reporting are a combination of**
  - global configuration (applies to all exams/ users)
  - user permissions (controlled by admin, applies to selected user roles)
  - user profile settings (set as default but can be edited by user)

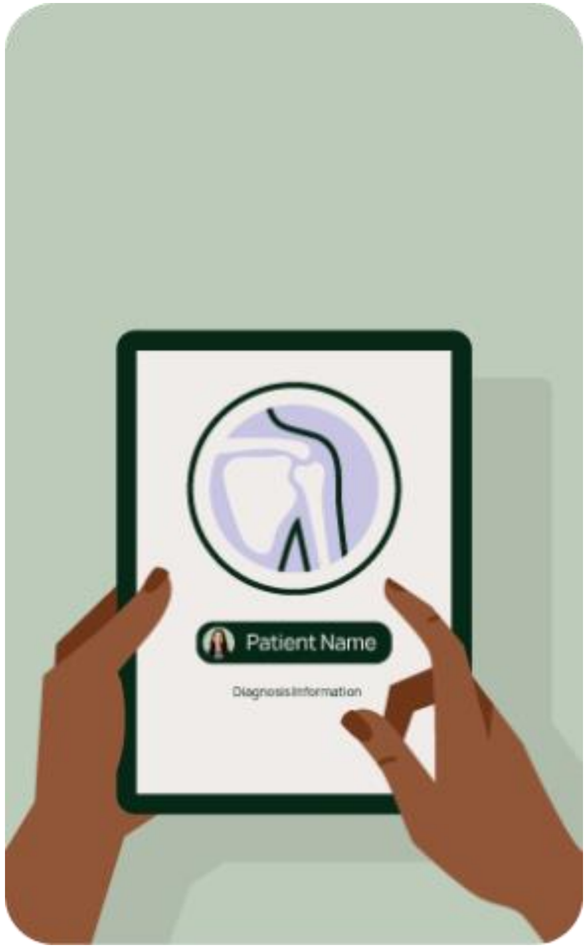
- **InteleOrchestrator controls which exams are launched**
  - In the Viewer
  - In the VR system
    - Report format requirements of downstream systems must be considered



Managing Exams

Combined Procedures

- **Prompt for combine (User profile setting)**
  - All unread (no filter)
    - Consider implications for different referrers
  - Same visit (global config required)
  - Same visit/ same modality
- **Auto-combine (force combine)**
  - No prompt
- **Prompt for consecutive**
  - Applies to exams being reported in Auto-next mode



Managing Exams

Summary

Procedure management

Similar to Study Classifier in PACS, allows for procedure code normalisation

Combined procedures

Determine how patients with multiple unread exams should be presented to the radiologist

Sites & site groups

Allows for granular credentialing for individual sites, with site groups enabling easier creation of worklists etc.

Master Patient Index

MPI process separate to that of the PACS, admins are able to monitor suggested matches

Managing Exams

Relevant User Role Permissions

Procedure management

- Access Procedure Management

Master Patient Index

- Match Patients
- ~~Merge Patients~~

Sites and Site Groups

- Manage System Configuration

Combining Exams

- Check for Combinable Reports
- Check for Consecutive Reports

Q&A

Today's Agenda- Afternoon

04 **Managing Users**

05 **Automating Workflows**

Managing Users

Access, Permissions & Preferences

Managing Users

Key factors in exam access and system behaviour

Credentialing

- Whether or not a user can report or view specific exams

User Role (s)

- Groups of permissions that govern access to functionality

User Profile settings

- Settings applied to individual user accounts, some of which are managed by the user

Groups

- Membership can affect exam assignment, shift access, subspecialty workflows

Managing Users
Credentialing

- **Credentialing a user**
  - Controls which exams a user can access
    - View access
    - Final access
    - Group access ONLY applies to Subspecialty (allows definition of Primary vs. Secondary subspecialty for a user)
  - Multiple combinations are possible
    - Suggest maximum of two factors to avoid over-complication & admin overhead
    - Combination of site/ modality or site/ subspecialty

Managing Users

User Role Management

- **User Role Management**
  - Both local and LDAP roles are configurable
    - A specific User Role is either locally managed or LDAP managed
    - AD user accounts can have both LDAP and local user roles
  - All permissions need to be associated with a role
    - Unlike IntelePACS, where user accounts can be granted individual permissions on top of their user role
  - Radiologist role should be the minimum set of permissions required (with additional roles configured for those requiring additional privileges)
    - Do not re-name the Radiologist role!

Managing Users
Profile Management

- **User Profile – settings managed by end user**
  - UI appearance (Theme, layout etc)
  - Time zone
  - Viewer & VR launch options
  - MRQ/ worklist filtering
  - Notifications
  - Combine prompt
- **User settings & Password management**
  - Passwords for integrations (eg. Foxo)
  - Report names and identifiers
- **Log out elegantly**
  - Users should be reminded to log out properly to ensure profile settings are saved

Managing Users

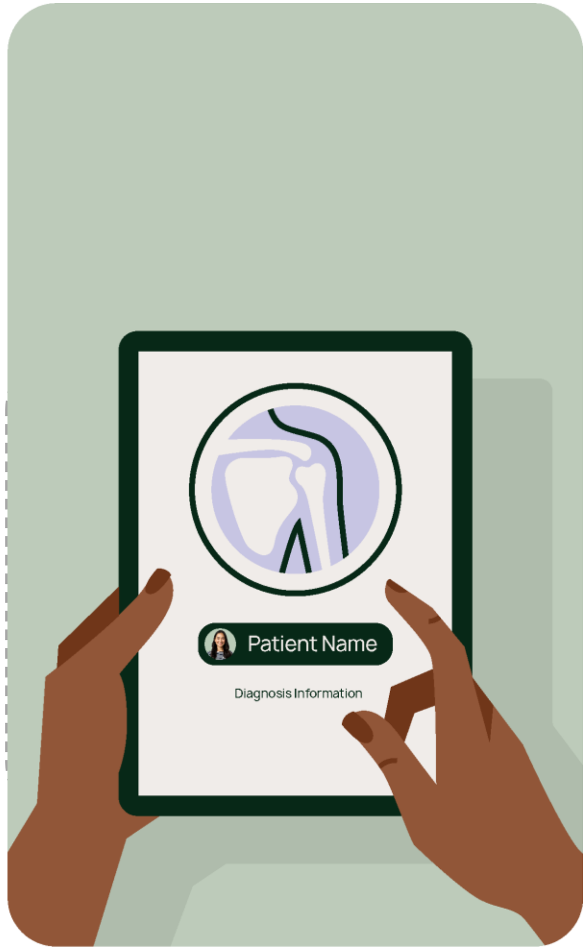
Profile Management

- **User Profile - Settings managed by admin**
  - Timeout & password expiry
  - Maximum exam assignment value
  - Maximum peer review assignment
  - RVU/ WU gauges active
  - RVU/ WU goals

Managing Users

Group Management & Practices

- **Groups of users**
  - Used to create assignment rules, notification rules etc and control shift visibility
  - Possible to belong to multiple groups
- **Subspecialty groups**
  - Group of users associated with a specific subspecialty
  - Allows for definition of a user's primary or secondary subspecialty
  - Users can still be credentialed to report subspecialty exams **without** being a group member
- **Practices**
  - Similar to user groups, functionality relating to Peer Review, Analytics and Workload Gauge
  - Users can only belong to one Practice



Managing Users

Summary

User Accounts

Can be created locally or via LDAP

User Profiles

Configurable by the end user, possible to have multiple profiles

User Roles

Can be assigned locally or via LDAP. A user may have a combination of local and LDAP assigned roles

Group Management

fines different subsets of users for the purposes of assignment, subspecialty management etc.

Credentialing

controls which exams a user can access, either for viewing or reporting

Practices

Optional (but useful for Peer Review and some analytics reports)

Managing Users

Relevant User Role Permissions

User Accounts

- Access to Management
- View Users
- Create/ Edit a User
- Delete User from User Management

User Roles

- View User Roles
- Create/ Edit User Roles

User Profiles

- Edit Username in Password Management

Credentialing

- View access to Credentialing
- Admin access to Credentialing

Group Management

- Access Management
- View Group Management
- Edit Group Management Page

Q&A

Automating Workflows

Automating Workflows

Discussion points

Consider existing SLA deliverables with hospitals or other imaging providers

Consider existing rules around exams being assigned to specific radiologists or groups

Are there specific instances where the technologist will need to manually assign to a radiologist?

Define fallback SLA/ TATs for each exam priority

Automating Workflows

Creating rules and groups

Assignment Rule Management

- Which exams need to go to whom (and when)

SLA Management

- Time-remaining based on a range of criteria
- Escalate priorities as exams come close to breaching SLA (Service Level Agreement)

Notification Management

- Set alerts for specific users or groups of users
- Proactively monitor worklists and queues
- Set alerts for unknown site, radiologist, subspecialty etc.

Automating Workflows

Assignment Rule Management

- **Assign to users, groups, shifts**
    - Worklist filtering
        - Initial build of the worklist can exclude exams assigned to other users
        - Radiologist can choose to enable the profile setting to exclude assigned exams from the MRQ
    - Subspecialty group as opposed to direct assignment
    - Manual assignment privileges
    - Load balancing
- **When to assign**
    - Fallback assignment
    - Persistent vs. Non persistent
    - RIS assignments

Automating Workflows

Assignment Rule Management

Persistent Assignment

- Rule will still apply when user is not logged in
- All HL7 assignments are persistent
- Will not unassign if SLA breach is imminent

Assignment Queue

- Considers rule and HL7 assignments
- Impacted by Max Assigned (user setting)
- Includes Cancelled, Ordered, Draft exam status

Non-persistent assignment

- Will only assign when user is logged in to the worklist page *and* on a shift
- Can be unassigned as part of SLA rule escalation

Assignment limiter

- Unit is applied globally
- Max Exam Count, Max RVU, Max WU
- Can be overridden for non-Routine exams

If an exam absolutely must be reported by a specific user or group then persistent assignment rules should apply. If the assignment is less strict, consider using a non-persistent assignment rule instead

Automating Workflows

Assignment Rule Management – Load Balancing

Assign to a group or a shift

- Group assignment can be useful for subspecialty assignments
- Shift assignments will apply to individuals
- Can load balance across either

Assign by target (RVU/ WU)

- Considers the total number of RVUs/ WUs currently assigned
- Will assign to the rad with the lower number of RVUs / WUs in their assignment queue

Assign by count

- Considers number of exams assigned to a radiologist
- Will assign to the rad with the lower assignment queue count

Read and assigned

- Includes exams in assignment queue *as well as* exams already reported during that shift
- Can be used to evenly share work across a group regardless of when a user logs in

All load-balancing rules need to utilise the same unit (number of exams/ RVU/ WU) when considering the radiologists assignment queue

Automating Workflows

Assignment Rule Management

- **Additional factors that can impact exam assignment**
  - User setting – Max assigned count / RVU / WU
  - RVU or WU goal definition (shift or individual radiologist)
  - High Priority Ignore Limit – configuration setting
  - Manual assignment privileges
  - Load balancing

Automating Workflows

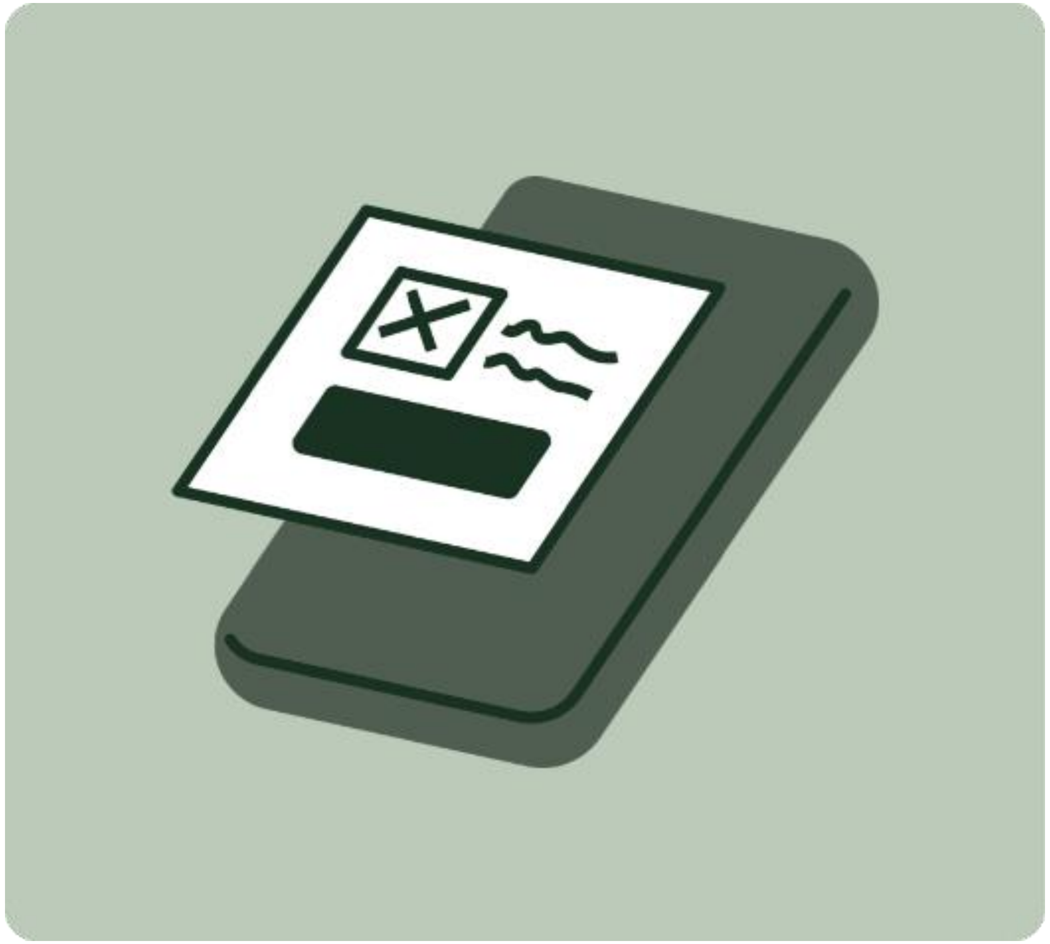
SLA Rule Management

- **Relative**
  - Importance of rankings
  - Fallback SLA rules for each priority
- **Absolute**
  - Consider clinics in different time-zones (also daylight savings)
    - Rules created on this page are relative to server time
- **Escalation options**
  - Escalate exam priority at x mins time-remaining
  - Implications when there is a backlog
  - Un-assign only applies to non-persistent assignments

Automating Workflows

SLA Rule Management

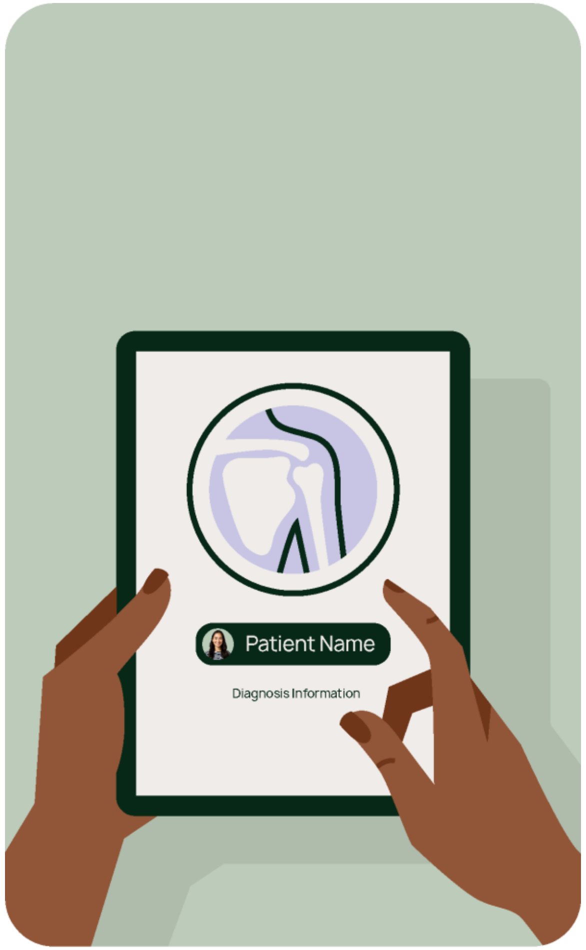
- **Time Remaining**
  - Useful field for worklist sorting
  - Can be useful for the creation of backlog worklists
  - Also used in conjunction with other fields to trigger notifications
- **SLA**
  - Default definition is Unread time- Final Time
  - Consider implications if client's customers have a different definition
- **Analytics**
  - Review how often SLAs are being met
    - Exclude exams with specific communication notes (ie. issue with exam preventing radiologist from reporting)



Automating Workflows

Notification Management

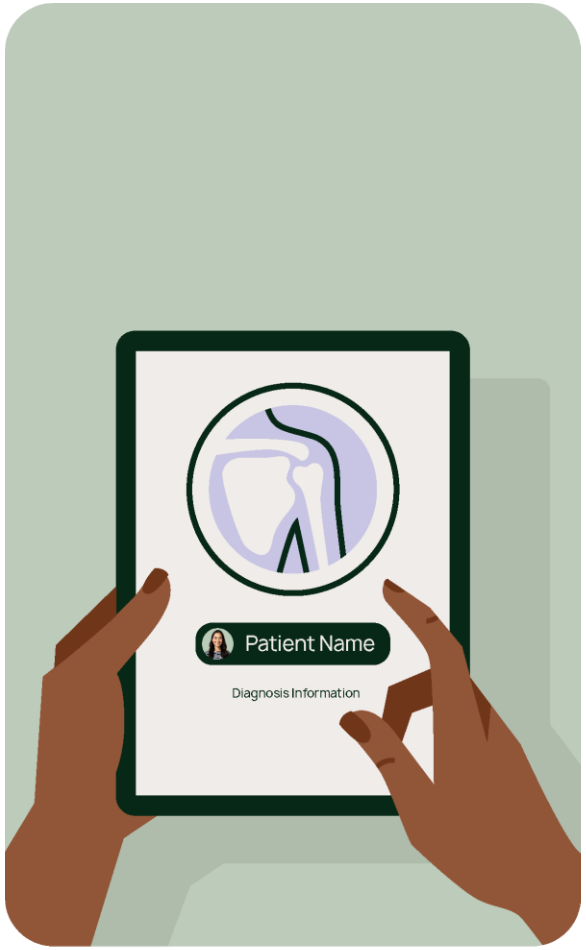
- **Setting alerts for specific users or groups**
  - Proactively monitor worklists and queues
  - Set alerts for unknown site, radiologist, subspecialty etc.
- **Alerts vs. Notifications**
  - Configure to send to email
  - Consider the frequency of notification/ alert
- **Other considerations**
  - Ad hoc
  - Opting out



Automating Workflows

Notification Management

- **Triggers**
  - Threshold
    - Defined by exam count, WU or RVU
    - Usually triggered by multiple exams
  - Time in status
    - Singular exam (eg. Stuck in validation)
  - Status change
  - Note creation
    - Useful for Peer Review, or specific type of Communication Note
  - Exam assignment
    - via Assignment Engine only (not HL7 or manual assignment)
  - Exam needs Addendum



Automating Workflows

Group Management

- **Covered in-depth during Managing Users session**
  - Assignment rules
  - Notifications
- **Groups of users**
  - Group groups
  - Subspecialty groups
- **Practices**
  - Peer Review
  - Workload gauges

Automating Workflows

Summary

Assignment Rules

Specify which exams should be reported by a user, group or shift

Groups

Define subsets of users for ease of exam assignment and notification

SLA rules

Define Turn-Around Times based on specific exam criteria

Notifications and Alerts

Configure the system to selectively alert users in different scenarios

Automating Workflows

Relevant User Role Permissions

Assignment Rules

- View Assign Rule Management
- View Enterprise Worklists
- Create/ Edit Group and Enterprise worklists

SLA Management

- View SLA Management
- Edit SLA rules

Notifications and Alerts

- View Notification Management
- Edit Notification Rules
- Create Alerts/ Create Notifications (status bar)
- View Alerts/ View Notifications (status bar)

Q&A

Thank you for joining us!

InteleOrchestrator Administrator Training

Day 2

Jane McNamara

20.11.2024

Today’s Agenda- Morning

01 **Concierge & Notes Workflows**

02 **Configuring the System**

Today's Agenda- Afternoon

03 **Enhancing Workflow Efficiency**

04 **Peer Review**

05 **Workstation considerations**

Concierge & Notes Workflows

Concierge Workflow

Discussion points

Is there currently a defined radiologist support team?

What is the current process when
a radiologist is unable to report an exam?

Business hours vs. After hours

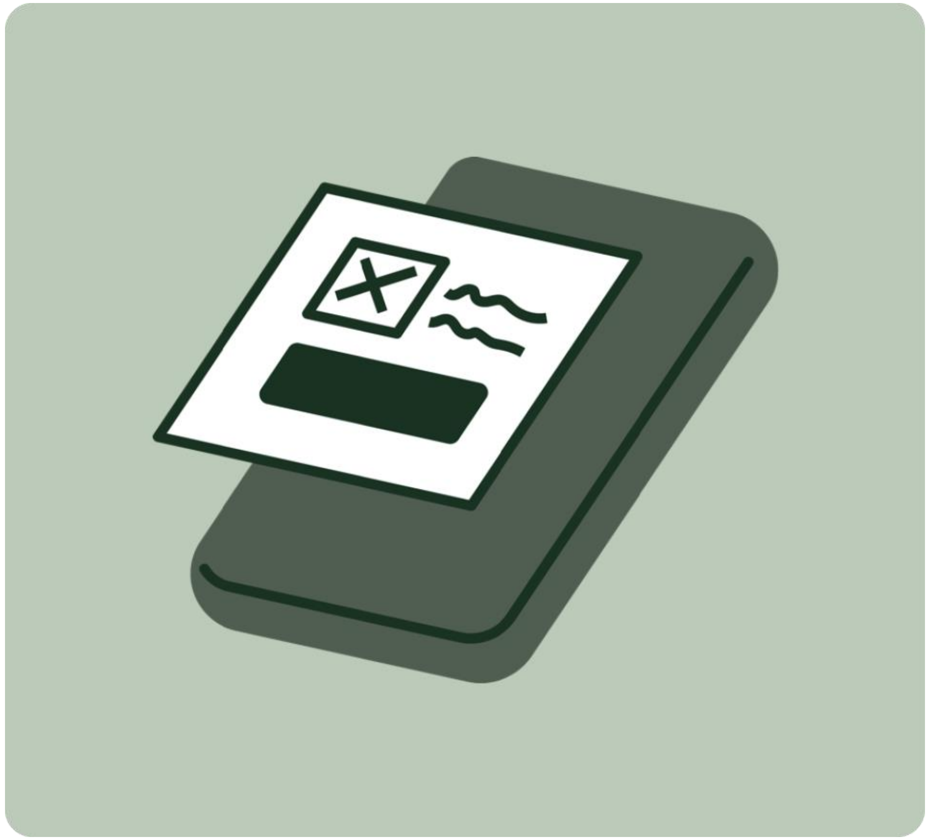
What are the current processes for flagging Critical Results?

Is there an existing process for radiologist feedback to the technologists?

Concierge & Notes Workflows

Communication Notes

- **Define note types**
  - Define subtypes
  - Set default messages
  - Define different groups of operations team (where required)
  - Ensure reporting worklists are appropriately filtered
- **Create and monitor operations worklists**
  - My Support Queue
  - Filter worklists by site saves radiologists assigning the note (less clicks)
  - Set up notification rules as required



Concierge & Notes Workflows

Critical Results

- **InteleOrchestrator**
  - Different type of Communication note
  - Set default messages or pre-canned text
  - No integration with IntelePACS Critical Results module

Concierge & Notes Workflows

Other note types

- **Patient note**
  - Set default messages
- **Exam note**
  - Less configurable in the front end (compared with Comm. Notes)
  - Needs Addendum is the most often-used note
- **Follow up note**
  - Different type of Communication note
- **Teaching note**
  - Save in the Folders tab on the worklist
  - Alternative to Study Tagging in the PACS

Concierge & Notes Workflows
Tech QA

- **Customise ratings per modality**
  - New notes fall into Pending status
  - Can be filtered in the worklist

- **Create worklists for Tech review**
  - Action notes as required
  - Use the export functionality from Advanced Search to review results & statistics

Concierge & Notes Workflows

Messaging

- **Chat History**
  - By default, history is displayed for 3 days
  - Possible to audit chat logs from the backend
- **Online vs. Away**
  - Users are able to set their status to Away
  - Time-out for Away status (configurable)
- **Collaboration feature**
  - Send links to studies
  - Enable browser pop-ups
- **Private and public messaging groups**
  - Message multiple users at once

Concierge & Notes Workflows

Summary

Communication notes

Specific note type, allows for closed-loop communications

Critical results

Workflow can be configured using custom Communication notes

Additional note types

Implemented as required

Tech QA

Workflow for providing actionable feedback from radiologists to technologists

Messaging

Module available within InteleOrchestrator (not integrated with IV messenger)

Concierge & Notes Workflows

Relevant User Role Permissions

Communication Notes

- Administrator Communication Notes
- Create Communication Notes
- View Communication Notes
- Communications Turnaround (Analytics)

Other note types

- Administrator, Create, View permissions for other note types

Tech QA

- Create Tech QA notes
- View Tech QA notes
- Administrator, Create, View permissions for other note types

Teaching Notes

- Administrator Teaching Notes
- Create Teaching Notes
- View Teaching Notes
- Use Folders

Messaging

- Access to Messaging
- Messaging Admin
- Leave Public Group
- Leave Private Group
- Ability to Delete Public Groups
- Ability to Delete Private Groups

Q&A

Configuring the System

Configuring the System

Important to know

- **User role permission**
  - Only one permission required to access all this functionality- use it wisely!
- **Changes made in here affect the whole system**
  - If you're not sure what something does, please ask
  - Useful to have a peer review process in place for making changes in these pages
  - Limited audit capability for specific changes
  - Some sections should only be edited by IO Technical Services
- **Save button tends to move around**
  - And on some pages there isn't one, changes save automatically

Configuring the System

Active Directory

- **LDAP Groups**
  - Configure LDAP access groups
  - Associate different groups with IO user roles (this can also be achieved in User Role Management)
  - Users will still need to be credentialed to access Sites
- **LDAP Server**
  - Connection details for the LDAP server
  - Get InteleOrchestrator Users to manually run the integration
  - Default setting is every 15mins to check for new users

Configuring the System

Configuration

Body Parts

- Keyword search in procedure name
- Auto-next optimiser and worklists

Database

- Name Format
- SLA definition

Credentialing

- Be careful when making anything Active
- Callout number two will go here.

Mail Server

- Authentication details for IO emails
- Analytics and notifications

Custom Reports

- Custom queries are uploaded here
- Search fields can be added

Reading Locations

- Config for additional shift information
- Can be linked to workstation

Body Part configuration should be reviewed by the client to ensure it will meet their needs. Additional Body Parts can be added and the existing keyword mapping can be edited in the UI.

Configuring the System

Document Viewer

- **Default Document Viewer per Site**
    - Configured in the backend
    - Can be configured per site
- **Default Document**
    - Defines which document displays for all users
    - If default isn't available, user can select the document required
- **Default Display**
    - Split view- define second document
- **Documents Category Config**
    - Name and associated icon
    - Which roles can access (default: all)
    - Whether a document type is inverted by default

Configuring the System

Exam Status

- **Status**
    - Overview of all exam statuses in InteleOrchestrator
    - Not all will be active or relevant to your workflows
    - Control which actions are possible under which status
- **Status Change Icons**
    - Allows for specific status changes to appear as a worklist action icon
        - *Validated - Unread* is useful for testing
        - *Final – Addendum Required* as a shortcut
    - Will update the exam timestamp when configured (as opposed to right-click Change Status)

Configuring the System
Notes

- **Communication notes**
  - Configure which note types are active
- **Note**
  - Configure default format for each hard-coded note
  - Control which note types are available with Single Click
- **Note Message**
  - Configure pre-canned text for each note type
  - Use the drop-down to configure Communication Notes
- **Tech QA Rating**
  - Configure different Ratings messages
  - Associate different Ratings with the relevant modalities

Configuring the System

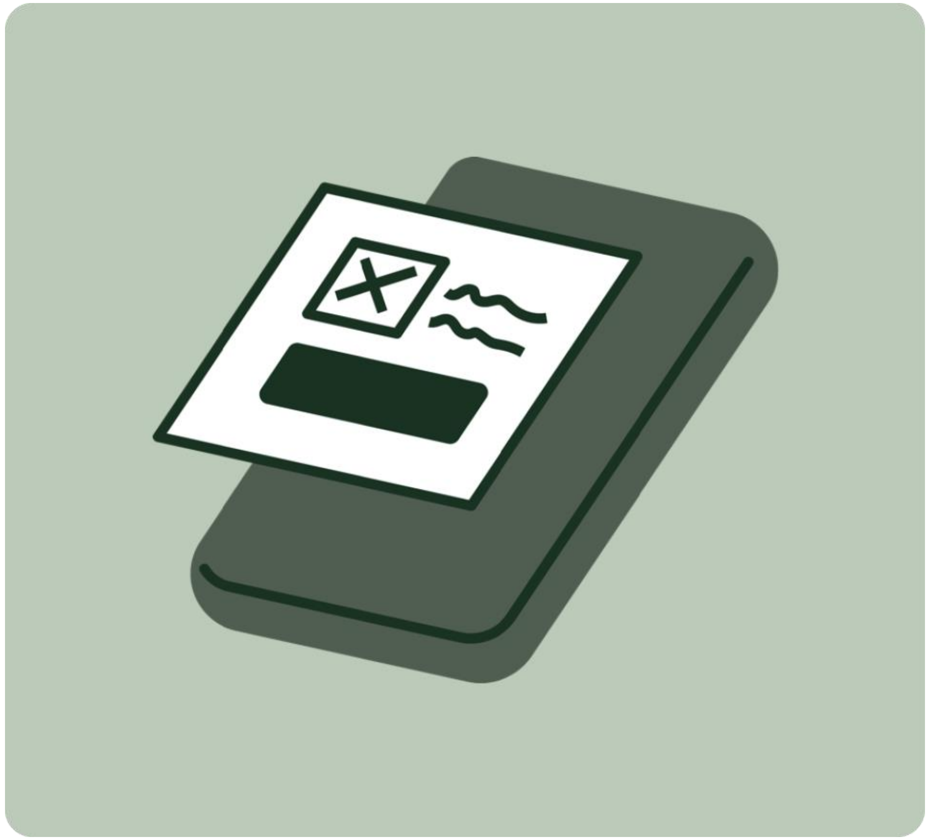
Organization

- **Location**
  - Auto-populate based on information in ORC-13
  - Can be manually configured to match to specific Sites
- **Practice**
  - Grouping of users- Peer Review, Workload Gauge, Analytics
  - Same day assignment can be enabled here
- **Site**
  - Need to be manually input
  - Remember to update credentialing when adding a new site!
- **Site Report Template**
  - Defined when IO is involved in the report distribution
- **Site System**
  - Not for editing by the client (or the apps team!)

Configuring the System

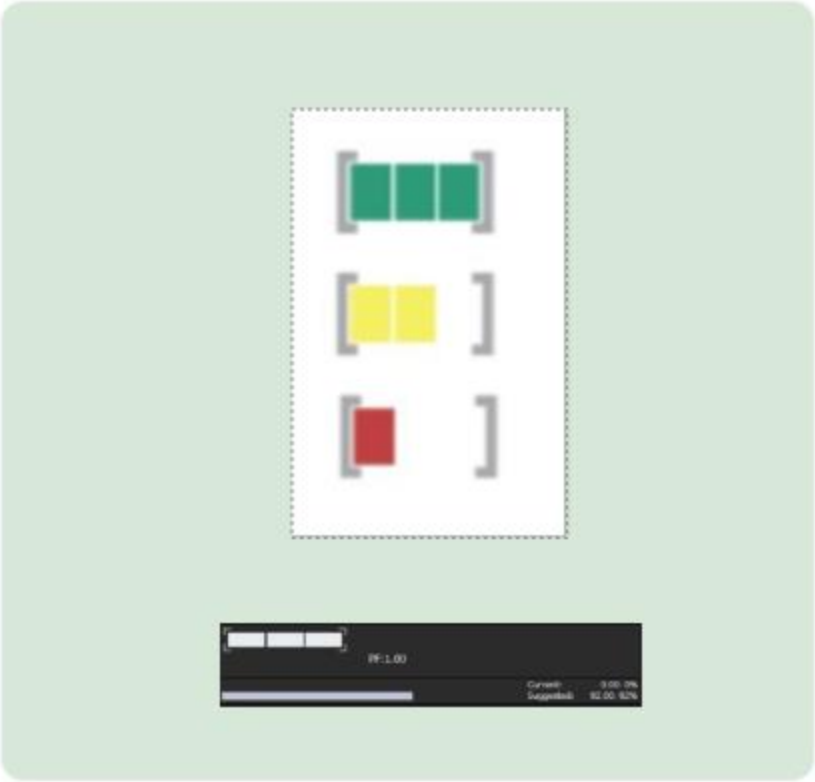
Portal

- **Not applicable**



Configuring the System
Productivity Gauge

- **Calendar event type**
  - Define RVU/ WU credits for specific calendar events
- **RVU Task**
  - Define RVU/ WU credits for non-reporting tasks
- **Workload Gauge**
  - Define the settings for the workload gauge based on the exams from certain sites (Site Groups) and specific groups of users (Practices)
  - Determine the requirements for each colour threshold
  - Determine how Practice Factor is calculated



Configuring the System

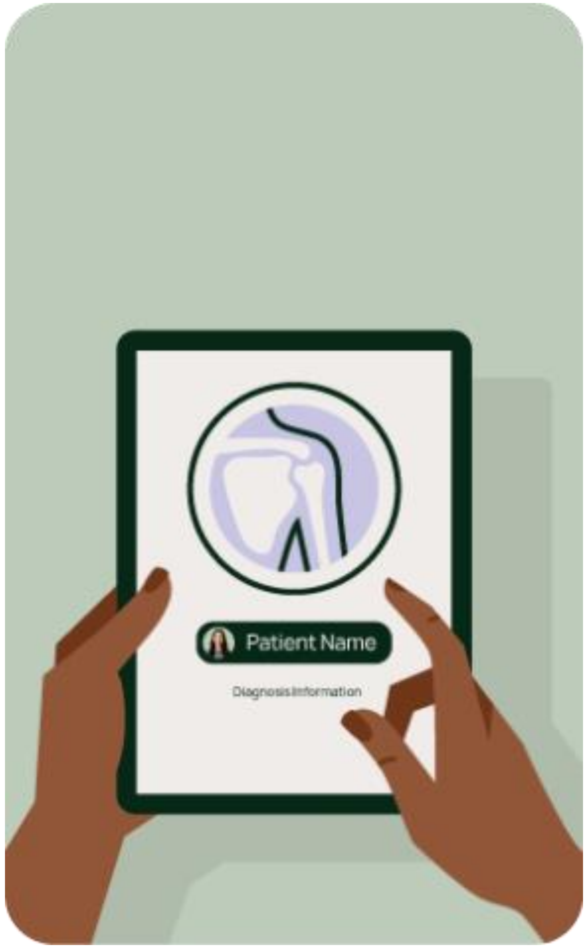
Reporting

- **InteleOrchestrator Commands**
  - Define the VR commands for clients using InteleOrchestrator Reporting

Configuring the System

Security

- **Enterprise Authentication**
  - Only available for Okta authentication currently
- **Multi Factor Authentication**
  - Configure MFA settings for users with the MFA permission added to their User Role
  - Define IP Whitelist as required
- **SSL Certificate for WebSocket**
  - Upload new SSL Certificates as required
  - Configure the notification setting for users with the User Role Permission *Receive notification of upcoming SSL Certificate expiry*



Configuring the System

Services

- **AI Navigator**
  - Configuration of AI processes and DICOM entities
  - Configuration of AI Priorities under Configuration > Worklist
  - Further configuration of routing rules is possible in Management > AI Navigator

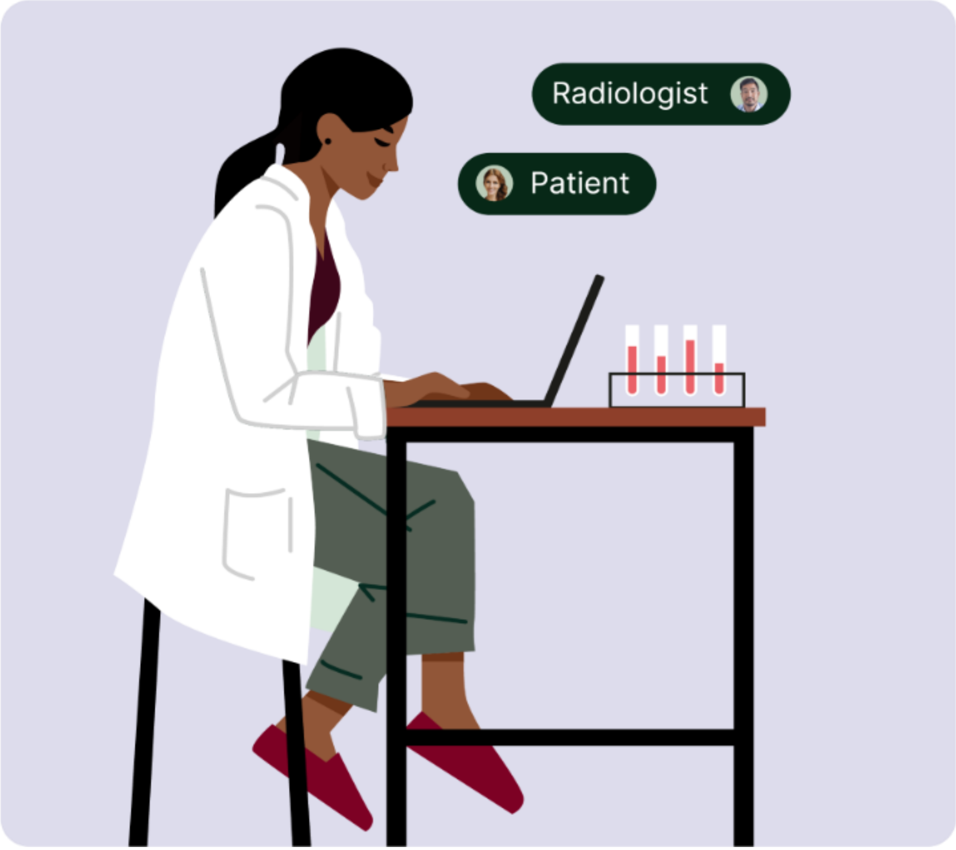
Configuring the System
Worklist

- **AI Priority Mapping**
  - Map the incoming priority of various AI findings to a normalised set of priorities in InteleOrchestrator
  - Define the ranking of the various priorities for a logical sort order when applied to a worklist
- **Application Groups**
  - Group together combinations of Viewer and VR systems
  - Can be applied to the Auto-next Optimiser
- **Images/ Icons**
  - Upload custom branding and logos for the different themes

Configuring the System

Worklist

- **My Reading Queue**
  - Define global settings for MRQ
  - Whether users can edit their own settings
  - Whether user edits are temporary or persist between logins
- **My Support Queue**
  - Define the global settings for MSQ
  - Whether users can edit their own settings
  - Whether user edits are temporary or persist between logins



Concierge Workflow
Worklist

Edit Field

Define the global settings for the information available in Patient View & the Report Hover

Search Result

Define the global default and available columns for all types of searches and worklists.

Don't remove Check

Worklist Groups

Create additional Worklist Groups (folders) for Enterprise worklists. Define which users have access to different worklists

Worklist Tuning

Enable the worklist counts for Enterprise worklists. Assess worklist performance.

Configuring the System
Worklist

- **Styling**
  - Considerations for 2 different themes
  - How worklist config impacts which styling options are displayed
    - Row Style = Row Colouring Schema
    - Active Style = Cell Style
  - Consider how MRQ settings might also affect this
    - Worklists may appear vastly different depending on whether the user is viewing the individual worklist or MRQ
    - Colouring may appear differently between users depending on their access to edit MRQ
  - Option to export settings as a backup before making changes

Configuring the System

Relevant User Role Permissions

Configuration

- Manage System Configuration

Impersonate User

- Master login permission

Notifications

- Receive notification of upcoming SSL Certificate expiry

Q&A

Today’s Agenda– Afternoon

03 **Enhancing Workflow Efficiency**

04 **Peer Review**

05 **Workstation considerations**

Enhancing Workflow Efficiency

Analytics and Productivity Gauges

Enhancing Workflow Efficiency

Discussion points

Will radiologists be allowed to access selected analytics data?

Which users should have the All Radiologist Access permission enabled?

Which other user roles will require analytics access?

Should radiologists be able to receive RVU credit for non-reporting tasks?

Enhancing Workflow Efficiency

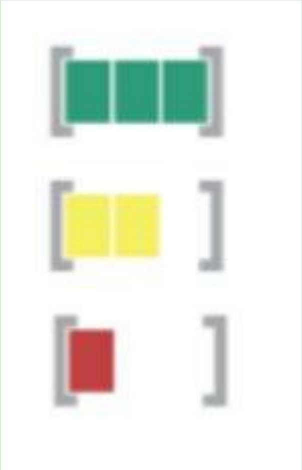
Analytics

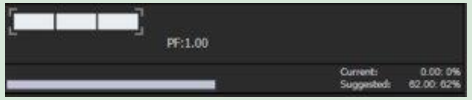
- **Dashboard**
  - Each widget is accessible by a separate permission
  - Useful comparisons are possible by reviewing the same widget side-by-side with different filters enabled
  - Possible to export as a spreadsheet, with or without the exam data
  - Remember to set the date range to be 'relative' for any widgets that you would like to check regularly
- **Reports**
  - Ad hoc, or schedule regular reports to be automatically generated
  - Enable reports to automatically to selected recipients with the option to password protect the data
  - Consider PHI restrictions when emailing/ sharing reports

Enhancing Workflow Efficiency

Productivity Gauges

- **RVU Gauge/ WU Gauge**
    - Focus on individual radiologist productivity
    - Set targets for individual radiologist, or shift
    - Constant goal
    - Enable either RVU Gauge or the WU gauge
- **Workload Gauge**
    - Provides feedback for the radiologist in the context of the entire practice
    - Different algorithms for configuration





Enhancing Workflow Efficiency

Summary

Analytics Dashboard

Add multiple widgets for an overview of various system elements

RVU tasks

Allow the radiologist to receive RVU credit for defined non-reporting tasks

Analytics Reports

Edit and generate ad hoc or regular reports, using the provided templates

Workload Gauge

Provides the radiologist with real-time productivity feedback in the context of the entire practice

RVU Gauge/ WU Gauge

Provides the radiologist real-time feedback on their daily productivity

Enhancing Workflow Efficiency

Relevant User Role Permissions

Analytics Dashboard

- Access for various widgets
- All Radiologist Access

Analytics Reports

- Unlimited Advanced Search
- Access for the various reports

Workload Gauge

- Enabled per user in User Management
- Set WU Goals
- Can also be specified for a shift
- Consider configuring Practices prior to enabling the Workload Gauge

RVU Gauge

- Enabled per user in User Management
- Set RVU targets
- Can also be specified for a shift (shift target will override individual target)

Q&A

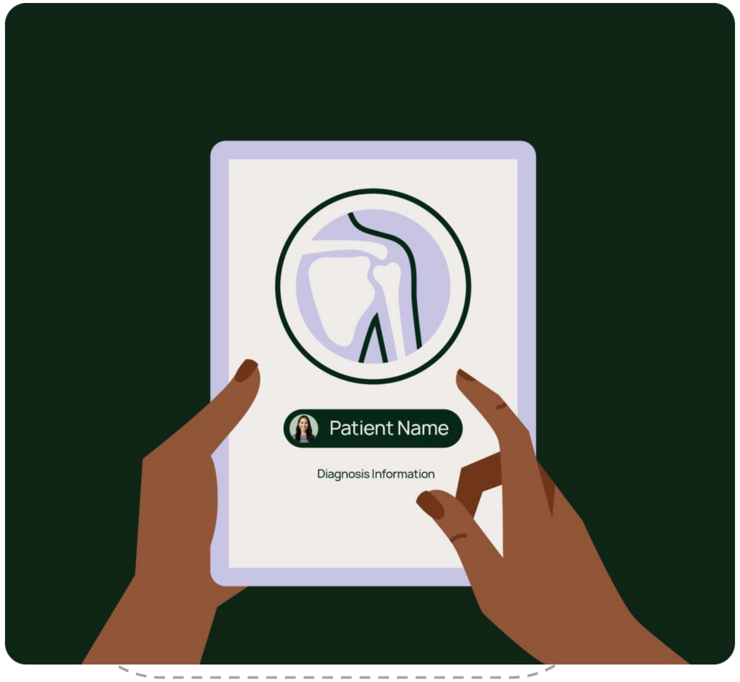
Peer Review

Peer Review
Workflows

- **Ad hoc**
  - Allows for the peer review of a prior exam while reporting
  - These reviews can also be manually assigned
- **Assigned**
  - Peer reviews are automatically assigned according to the assignment rules
  - Can create both focused and ongoing assignment rules
  - Double-blinded to a certain extent
- **Prompted**
  - Radiologists are prompted to review a prior study for the patient they are currently reporting
  - Less commonly implemented

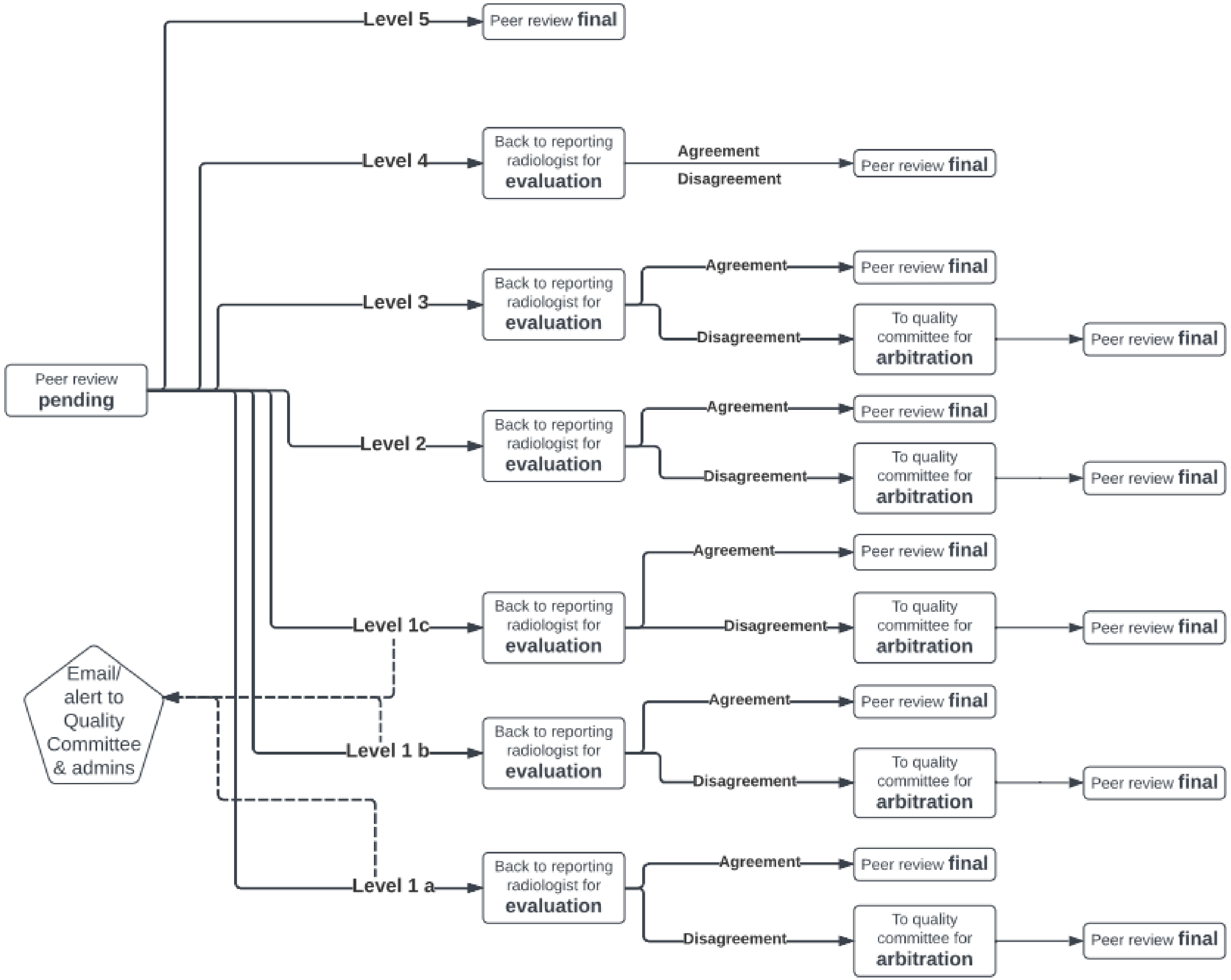
Peer Review
Workflows

- **Escalation**
  - Assigns a discrepant review back to the reporting radiologist for their input
  - Optional step, can be excluded or bypassed
- **Arbitration**
  - Assigned directly to Quality Committee because of serious rating
  - Assigned as a result of disagreement following the evaluation workflow
  - Double-blinded to a certain extent
- **Addendum required**
  - Can be determined in the arbitration process and assigned to appropriate radiologist



Peer Review

IA Workflow



IAVIC Peer Review Ratings

Level 5 = No discrepancy.

Level 4 = Minor discrepancy - either typo or trivial discrepancy of doubtful clinical significance.

Level 3 = Minor discrepancy - significant clinical impact unlikely.

Level 2 = Moderate discrepancy – possible clinical impact.

Level 1c = Major discrepancy - possible clinical impact.

Level 1b = Major discrepancy - significant clinical impact in the future likely.

Level 1a = Major discrepancy - likely immediate and significant clinical impact.

Peer Review

Summary

Worklists

Assigned to Me & Evaluation
for reviewers. Arbitration worklist for Peer
Review admins/ Quality committee

Dashboard

Analytics for users to see how they are tracking in comparison with the wider group

Peer Review Notes

Easily configured in the management pages

Analytics

Option to set the Peer Review report to run regularly

Peer Review Assignment

Set ongoing or focused rules to automatically assign Peer Reviews

Peer Review

Relevant User Role Permissions

Peer Review Users

- Assign to Peer Review
- Peer Review User
- Create Peer Review Notes

Reports/ Widgets

- Peer Review Analysis
- Peer Review Error Rate by Time of Day
- Peer Review Scorecard

Peer Review Management

- Access Peer Review Management
- Delete Peer Review Note
- Peer Review Administrator
- Create Worklists
- View Enterprise Worklists
- Create/ Edit Group & Enterprise Worklists

Q&A

Workstation Considerations & Troubleshooting tools

Workstation Considerations

Extender (formerly zV Extender)

Must be running

- For integrations to launch (PACS and VR)
- Logs are very useful for troubleshooting connectivity issues

Must be up to date with IO version

- Confirm version by right clicking the icon

Right-click options

- Re-initialise to reset the connection
- About – information on current version

Logs automatically uploaded

- Defined location on the services server

Workstation Considerations

Desktop Monitor Service

Ensures Extender is running

- Checks every 5mins that the Extender is running

Ensures Extender is up to date

- Automatically downloads the latest version of the Extender following an upgrade.

Rarely requires upgrading

- Since version 4.1 has been compatible with all versions of IO

Silent Installer

- Ensures updates to the Extender will download and install without the user requiring Windows Admin permissions

Troubleshooting Tools

Dashboard pages

- **Service**
  - View the status of the various Services
  - Troubleshoot based on the Alerts and errors
  - Re-run Peer Review Assignment or delete Pending Peer Reviews
- **HL7 Sender**
  - Review status of sent messages and re-send if required
- **User Monitoring**
  - View online users
  - Force logout or pause exam assignment
- **Worklist Performance**
  - Assess how often different worklists are being accessed
  - Identify any worklists that may require optimisation

Troubleshooting Tools
Log Analyser

- **User logs**
  - Exam assignment
  - Login attempts
  - Shift assignments
- **Exam logs**
  - Exam status changes
  - Exam assignment
  - Exam access

Troubleshooting Tools

Patient View

- **HL7 updates**
  - View status changes and details of the message
- **Status changes**
  - Manual changes
  - Changes triggered by VR integration
- **Assignment and SLA rules**
  - View the specific rules that have been triggered
- **User access**
  - Who has viewed the order and any actions taken

Workstation Considerations

Relevant User Role Permissions

Dashboard

- Access to Dashboard
- Actions on HL7 Sender Page
- Create/ Edit Group and Enterprise worklists
- Actions on User Monitor Page
- View Access

Log Analyser

- Access Log Analyser

Patient View

- View/ Export detailed STAMP from exam history

Q&A

Thank you for joining us!