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|  | NHS Restricted RBAC Implementation Mapping for the Electronic Prescription Service Release 2 | | | |
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RBAC Implementation Mapping for the Electronic Prescription Service Release 2

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| 0.2 | 16/03/2007 | Updated in line with version 21 of the NRD |
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| 0.4 | 04/07/2007 | Second draft for comment |
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Distribution:

For issue to LSP and existing system suppliers within the CFH programme

Document Status:

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These documents will provide additional information.

| Ref no | Doc Reference Number | Title | Version |
|--------|------------------------|------------------------------------|----------------|
| 1 | NPFIT-SHR-QMS-PRP-0015 | Glossary of Terms Consolidated.doc | <enter latest> |

Glossary of Terms:

List any new terms created in this document. Mail the NPO Quality Manager to have these included in the master glossary above [1].

| Term | Acronym | Definition |
|------|---------|------------|
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Contents

| | | |
|-----|---|----|
| 1 | About this Document | 5 |
| 1.1 | Purpose | 5 |
| 1.2 | Audience | 5 |
| 1.3 | Background | 5 |
| 1.4 | Depreciation of the 'Area of Work' attribute | 5 |
| 2 | RBAC Roles for the EPS | 6 |
| 3 | RBAC Activities for the EPS | 8 |
| 3.1 | Summary of EPS Activities | 8 |
| | B0440 Supplementary Prescribing | 9 |
| | B0058 Nurse Prescribers Formulary (NPF) Prescribing | 9 |
| | B0278 Perform Prescription Preparation | 10 |
| | B0422 Reauthorise Medication | 10 |
| | B0468 Cancel Prescription | 10 |
| | B0401 View Patient Medication | 10 |
| | B0825 Amend Patient Demographics | 10 |
| | B0572 Manage Pharmacy Activities | 10 |
| | B0570 Perform Pharmacy Activities | 10 |
| | B0068 Verify Prescription | 11 |
| 3.2 | Role activity baselines | 11 |

1 About this Document

1.1 Purpose

This document provides guidance to EPS system suppliers for how to map local access control functionality relevant to the EPS with the national activity codes defined within the National RBAC Database (NRD).

1.2 Audience

This document has been written for system suppliers.

Previous versions of this document were also targeted for registration authorities (RA) and sponsors. Separate RA guidance now exists for this audience, see <http://nww.connectingforhealth.nhs.uk/iim/otherinfo/eps>.

1.3 Background

The NRD defines all roles and activities that are used to implement Role Based Access Control (RBAC) within CFH application. Also defined within the NRD are activity 'baselines'. An RBAC baseline is a set of activities defined for a role. These baseline activities are the minimum set of activities that can be undertaken by someone with that role. In addition to the baseline activities, sponsors can approve additional activities for a user. At the time of writing, the current version of the NRD is v26.1.

The implementation of RBAC for all CFH systems going forward, including the Electronic Prescription Service (EPS) Release 2, is required to change based on how RBAC was implemented for initial versions of CFH systems. This includes the implementation of RBAC for EPS Release 1.

A common misconception within early implementations of RBAC was that the user's role was the only differentiator for access rights. This is not the case as the user's granted activities determine what system functionality is available and not the role.

A user's activities are identified by combining:

- Those activities defined within a role baseline (these do not appear in the SAML but can be found within the National RBAC database)
- Those activities granted as additional activities by the sponsor as part of the user registration process (these activities are retrieved within the SAML)
- Those activities "included" (recursively) within any of the activities found above (these do not usually appear in the SAML but can be found within the National RBAC database).

1.4 Depreciation of the 'Area of Work' attribute

Version 26 of the NRD deprecated the 'Area of Work' attribute that was previously used to differentiate activities baselines for the same role.

Systems that currently implement logic based on Area of Work should plan to remove such logic. In parallel, RA guidance and tools will facilitate the addition of any required activities that were unique to Role + Area of Work baselines.

2 RBAC Roles for the EPS

In theory, a user registered with any RBAC role can have the relevant RBAC permissions to use the Electronic Prescription Service (EPS) Release 2. Provided either the user's role baseline or their user role profile contains the relevant activities, then they will be able to use the EPS.

Within the NRD roles are described as "rationalised", "deprecated" or "withdrawn". Current RA guidance recommends users are moved to 'rationalised' roles.

For EPS Release 2 prescribing sites, the use of rationalised roles will be encouraged wherever possible. This is because there are some inconsistencies within baselines for deprecated roles which may result in unwanted additional user access controls as baseline activities cannot be removed. Where a prescribing site wishes to continue using deprecated roles then the access controls granted to each user must be reviewed prior to implementation to determine suitability.

For EPS Release 2 dispensing sites, users must use rationalised roles. This is to make a clear separation between the use of smartcards under the EPS01 terms and conditions and smartcard issues under the RA01 terms and conditions.

| Type of System | EPS Release | Roles which should be used |
|----------------|-------------|----------------------------------|
| Prescribing | EPS R1 | Deprecated roles |
| | EPS R2 | Rationalised roles (recommended) |
| Dispensing | EPS R1 | R1290 Pharmacist (mandatory) |
| | EPS R2 | Rationalised roles (mandatory) |

Within the set of rationalised roles the following table indicates which are likely to be suitable for different user types.

However be aware that a user's sponsor has the rights to grant whichever role is felt to be most suitable for that user.

| Rationalised RBAC role | Examples of typical types of user |
|---|---|
| R8000 Clinical Practitioner Access Role | General practitioners and other independent prescribers |
| R8001 Nurse Access Role | Nurses |
| R8003 Health Professional Access Role | Community pharmacists and supplementary prescribers |
| R8004 Healthcare Student Access Role | GP registrars and pre-registration pharmacists |

| Rationalised RBAC role | Examples of typical types of user |
|-------------------------------------|---|
| R8006 Medical Secretary Access Role | Administrative staff who require access to clinical information |
| R8008 Admin/Clinical Support Access | Primary care support staff, medical secretaries, dispensing technicians or pharmacy medicine counter assistants |
| R8009 Receptionist Access Role | Practice receptionists or secretaries |

3 RBAC Activities for the EPS

Within the NRD, the activities related to the Electronic Prescription Service (EPS) are defined within the activity group of “Prescribing and Pharmacy” (not “Prescribing and Pharmacy Related”).

Not all the activities listed within the activity group “Prescribing and Pharmacy” are relevant to EPS Release 2. This section lists only the activities that are relevant to EPS Release 2.

3.1 Summary of EPS Activities

| System Type | Activity Code | Includes (where relevant to EPS R2) | Expected System Functionality |
|---------------------|---|-------------------------------------|--|
| Prescribing Systems | B0420 Independent Prescribing | B0278 | Apply an advanced electronic signature to a prescription. |
| | B0440 Supplementary Prescribing | B0278 | Apply an advanced electronic signature to a prescription. Supplementary prescribing restrictions. |
| | B0058 Nurse Prescribers Formulary (NPF) Prescribing | B0278 | Apply an advanced electronic signature to a prescription. Nurse formulary restrictions. |
| | B0278 Perform Prescription Preparation | B0422 B0468 | All prescription management functionality except the ability to apply an electronic signature. |
| | B0422 Reauthorise Medication | B0401 | Re-authorise expired cycles of repeat prescriptions. |
| | B0468 Cancel Prescription | B0401 | Cancel a prescription or item on an electronically signed prescription sent to the EPS. |
| | B0401 View Patient Medication | None | View/print prescriptions and issue for signing by a prescriber. |
| Dispensing Systems | B0572 Manage Pharmacy Activities | B0570 | Reimbursement and/or stock control functionality. |

| System Type | Activity Code | Includes (where relevant to EPS R2) | Expected System Functionality |
|-----------------------------------|-----------------------------------|-------------------------------------|---|
| | B0570 Perform Pharmacy Activities | None | Prescription dispensing functionality. |
| | B0068 Verify Prescription | None | Verify prescription prior to supply. |
| | B0401 View Patient Medication | None | View and print prescriptions. |
| Prescribing or Dispensing Systems | B0825 Amend Patient Demographics | None | Amend local patient demographics and synchronise records with PDS. Update patient nomination preferences. |

Guidance specific to the implementation of EPS Release 2 is now provided. This guidance should be read in conjunction with the activity descriptions defined within the NRD to determine how the local functionality should be mapped to the activity for functionality not related to EPS Release 2.

B0420 Independent Prescribing

This activity is the primary control, together with the issue of an NHS user smartcard, to ensure only authorised qualified individuals (clinicians) can apply an advanced electronic signature to prescriptions for medications prescribable by an NHS independent prescriber.

This activity should be mapped to system functionality that will allow an advanced electronic signature to be applied to an electronic prescription.

B0440 Supplementary Prescribing

This activity is the primary control, together with the issue of an NHS user smartcard, to ensure only authorised qualified individuals (clinicians) can apply an advanced electronic signature to prescriptions for medications defined within the locally agreed supplementary prescribing arrangements.

This activity should be mapped to system functionality that will allow an advanced electronic signature to be applied to an electronic prescription.

B0058 Nurse Prescribers Formulary (NPF) Prescribing

This activity is the primary control, together with the issue of an NHS user smartcard, to ensure only authorised qualified individuals (Nurses) can apply an advanced electronic signature to prescriptions for medications defined within the local nurse prescribing formulary.

This activity should be mapped to system functionality that will allow an advanced electronic signature to be applied to an electronic prescription.

B0278 Perform Prescription Preparation

Allows the user to access all prescription functionality required to create, amend and prepare prescriptions ready for signing by a prescriber. This activity does not permit the user to apply an advanced electronic signature to prescriptions.

B0422 Reauthorise Medication

Allows the user to authorise a new cycle of a repeat prescribing prescription following the expiry of the previous cycle.

Local processes for prescription management may vary, suppliers need to consider how best to implement this activity in relation to B0278 which should allow greater functionality and B0401 which should allow less functionality.

B0468 Cancel Prescription

For digitally signed prescriptions submitted via the EPS, a user with this activity can request the cancellation of the prescription or a prescribed line item together with handling any resulting response messaging. For hand signed prescriptions, this activity allows the necessary recording within the system that a prescription was cancelled or otherwise stopped.

B0401 View Patient Medication

Allows the user to view and print prescription details but not amend or delete them.

Within prescribing organisations the user can issue repeat prescribing prescriptions where the repeat cycle has yet to expire/has authorised issues still remaining. For paper prescriptions the issue process would result in a printed prescription for hand signing by a prescriber. For electronic prescriptions the issue process would result in a prescription being made available for electronic signing by a prescriber.

Within dispensing organisations the mapping of this activity to local access controls is **optional**. Where mapped the user can view prescription details and print materials such as EPS dispensing tokens.

B0825 Amend Patient Demographics

Users with this activity can update a patient's nomination preferences on PDS. A user without this activity can only record nomination preferences locally, awaiting an authorised user to update PDS.

B0572 Manage Pharmacy Activities

Allows the user to access functionality related all non-patient facing pharmacy dispensing activities such as those related to financial reimbursement or stock control.

At the time of writing, the legal reimbursement claim for EPS prescriptions remains a paper-based process (i.e. the FP34C form). Therefore at this time, this activity does not relate to any specific EPS functionality. The capture of electronic endorsements and patient details related to prescription fee exemption, although related to electronic reimbursement is part of the dispensing process so therefore is covered under the B0570 activity. Restricting access to stock control functions via this activity is optional and can be implemented as the discretion of the system supplier.

B0570 Perform Pharmacy Activities

Allows the user to view prescriptions and update the dispensing system with information relevant to the pharmacy dispensing process.

B0068 Verify Prescription

Where prescription verification is a manual process, involving no interaction with the dispensing system, this activity is not relevant as it cannot be mapped to any system functionality. Where the dispensing system requires the verification to be recorded electronically, this activity will control user access to such functionality.

3.2 Role activity baselines

The activity baseline for each of these rationalised roles may or may not contain all those required to give appropriate access to the EPS.

Users should be registered with the RBAC role that gives them the most appropriate set of baseline activities. Any additional activities required to provide the appropriate level of access control for the user can be added to their User Role Profile. For all roles other than prescribers given R8000, additional activities will need to be added for most users who support the prescribing or dispensing process.

| Rationalised RBAC Role | Baseline EPS-related Activities (NRD v26.1) Note: Other non-EPS activities are likely to exist within the baseline [*] denotes an included baseline activity |
|---|---|
| R8000 Clinical Practitioner Access Role | B0420 Independent Prescribing [*] B0278 Perform Prescription Preparation [*] B0468 Cancel Prescription [*] B0422 Reauthorise medication B0401 View Patient Medication B0825 Amend Patient Demographics |
| R8001 Nurse Access Role | B0401 View Patient Medication B0825 Amend Patient Demographics |
| R8003 Health Professional Access Role | B0401 View Patient Medication B0825 Amend Patient Demographics |
| R8004 Healthcare Student Access Role | B0401 View Patient Medication |
| R8006 Medical Secretary Access Role | B0401 View Patient Medication B0825 Amend Patient Demographics |
| R8008 Admin/Clinical Support Access | None |
| R8009 Receptionist Access Role | None |