

VMS Data Quality Issues Handbook

Introduction

Huge efforts that have been made in support of COVID-19 vaccination programmes over the past 2-3 years and an important aspect of that has been accurate recording of vaccinations in the Vaccine Management System (VMS). There has been on-going work to address Data Quality (DQ) issues in VMS that have occurred as vaccination programmes mobilised quickly and adapted to an ever-widening range of eligible cohorts and different vaccines.

VMS is intended as the single “source of truth” for COVID-19 vaccinations (with Influenza subsequently added and Shingles to be included in the near future), and is used to undertake vaccine surveillance and drive uptake. A high level of data quality is therefore a very important goal for the system.

We have resolved as many of these DQ issues as possible through an automated approach. These automated updates completed in January this year and resolved issues with some 125,000 records, most of which had incorrect batch numbers. The screen capture below shows an extract of the DQ Progress dashboard.

Update on DQ Progress										
Improvements in VMS DQ from 27th July 2022										
Totals	124,958	16,723	5,047	4,885	8,099	22,791	2,925	4,488	33,288	
Area	Total	GP	Pharm	SouthEast	North	East	South	West	Trusts Total	
Incorrect Vaccine Sequence	2,741	858	97	276	350	821	289	118	1,854	
Incorrect Product	851	57	16	487	120	99	48	155	908	
Invalid Batch Numbers - Total	117,578	85,539	4,888	3,902	8,428	9,781	2,860	4,099	27,184	
Unmatched Patients - Potential Matches	1,781	120	20	150	412	1,015	30	54	1,472	
Missing Vignettes	1,895	271	26	170	311	1,075	48	66	1,496	

Extract from DQ progress report of automated resolutions

Unfortunately, the remaining DQ issues cannot be resolved centrally. Therefore, we are now asking Trusts, GPs and Community Pharmacies (CPs) to help resolve DQ issues with records belonging to their organisations. (Please refer to covering letter.)

Data Quality (DQ) Dashboard

To help resolve these remaining issues, a DQ Dashboard has is now available within VMS to highlight records that have issues on a per practice / pharmacy / trust basis. This dashboard will only show records belonging to your organisation.

Here are some quick steps to access your dashboard -

1. Sign in to VMS
2. Select your location type from the dropdown options, as shown below –

Where are you working today?

Location Name	Filter locations
	Trust
	Select
BHSCT - District Nurse	Pharmacy
BHSCT - Mobile	GP
BHSCT - District Nurse	Nursing
BHSCT - Mobile	Trust
Belfast - Royal Victoria Hospital	Trust
BHSCT - District Nurse	Trust

3. Select your Location name from the list provided as per Location type selected above.
4. This will lead you to your specific Location page as shown below –

HSC Vaccine Management

Belfast - Royal Victoria Hospital

Enter health and care number (optional)

Or enter at least 3 of the following

First name

Last name

Date of birth

Postcode

Find patient

5. At the bottom of your specific location page you will find a blue ribbon (see image below), with a ‘Reports and Dashboards’ (next to the ‘Sign out’ option) link.



6. Clicking on this link, will take you to a dedicated page titled ‘Reports and Dashboards’ as shown below.

Reports and Dashboards

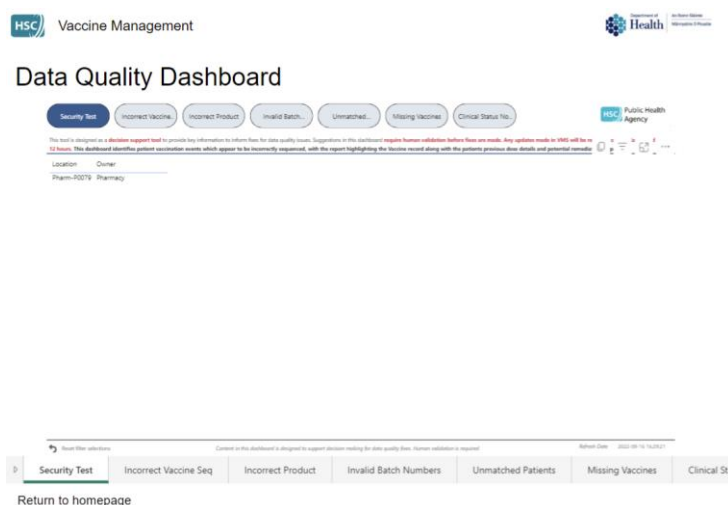
Data quality dashboard

View potential data quality issues with vaccinations recorded by your trust

[Data quality dashboard](#)

[Return to homepage](#)

7. Please click on the 'Data quality dashboard' hyperlink on the 'Reports and Dashboards' page.
8. This will lead you to your Data Quality Dashboard, as shown below –



The dashboard has been developed to highlight DQ issues. The dashboard will highlight:

- **Vaccines potentially missing from VMS** – identified via the COVID-19 Vaccine Certification process, with citizens providing evidence of vaccination and issued a COVID-19 certificate

Issue – Vaccines potentially missing from VMS

Issue

This DQ issue relates to vaccinations which appear on a person's COVID-19 certificate but are not recorded in VMS.

This occurs when a person has shown evidence of a COVID-19 vaccination (through production of vaccination card or other medical evidence) to the COVID-19 certification team and a COVID-19 certificate issued. The COVID-19 certification team complete a range of checks on the evidence of vaccination before issuing the certificate, including checking for booking appointments, validating the batch number was utilised on the claimed date of vaccination at the vaccination location, along with reviewing other vaccinations for the claimant within VMS.

This issue is a priority because the vaccination record is missing entirely from VMS, which is now the master source for COVID-19 and Flu vaccinations. The fix for this issue is relatively straightforward.

Identification

To identify records of this type, log into VMS with your normal credentials and then:

Navigate to the DQ dashboard (see right) and select the Missing Vaccines tab if this is not already shown. The screen capture (also see right) shows the DQ dashboard Missing

Vaccines tab. Although some of the data has been redacted, you can see a vaccination record (discovered in the COVID-19 Certificates System) that does not have a corresponding entry in VMS.

Location	Patient ID	Index HCN	First Name	Last Name	Date Of Birth	PostCode	Vaccine	Vaccination Date	Batch #
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	Dose 2 - AstraZeneca - C.	2021-03-03	PV46669

Screen capture of the Missing Vaccines tab of the DQ dashboard

Resolution

To resolve the issue, log into VMS with your normal credentials and then:

1. Validate that the above claimed vaccination was issued at your location.
If the vaccination has not occurred, take no further action.
2. If the vaccination was administered at your location, find the relevant patient, using the Find Patient screen. It should be possible to find the patient using the Health and Care Number (HCN) from the Index HCN field in the DQ dashboard, but the other data fields can also be used (First Name, Last Name, Date of Birth, Postcode). After searching, select the appropriate Patient Record from this screen.

Find Patient Screen

3. Record the vaccination using the **Record previously administered vaccination at this location** option from the patient record. Please only use this option to record missing vaccinations as using any other option (e.g. Vaccinate a walk-in patient) may mean that the relevant vaccine is not available to record. Choose the vaccination type and then click Record administered vaccination. The details should be available in the dashboard, **in particular the Vaccination Date should be post-dated to match the date** in the dashboard.
4. Save the vaccination record.

This will record the missing vaccination. This will remove the corresponding record(s) from the DQ dashboard. Please note that the DQ dashboard will be refreshed to remove any fixed records within 24 hours.
