Barcoded Flu Clinics

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Introduction

The barcoded flu clinic system was introduced in 2012 and has been used successfully over a number of years in several practices. It involves sending each patient an invitation letter with a barcoded, tear off ticket which they subsequently present at the practice flu clinic. The tickets are used to populate a list of patients, to which vaccination data is added as a batch process. The system is highly efficient and has the following benefits:

- No appointment booking is necessary
- Invitation letters can provide detail about the vaccine and the vaccination process
- Invitation letters can be formatted so that patients can update their contact details
- Patient transit through clinics is rapid
- Face to face contact is minimal
- Data entry is highly efficient
- No IT hardware is required on site
- Can be used for clinics where patients from multiple GP practices attend

General Overview

Pre-Clinic Process
Letters are sent inviting patients to attend open (unbooked) clinics.

Clinic Process
Patient brings the tear off ticket to clinic and hands it to the clinician administering the vaccination

Post-Clinic Process
Tear off ticket is scanned, adding the patient's NHS number to a list

The list is imported into EMIS Web and the flu vaccination details are added as a batch process

Creating the letter

The letter should be created in Word, accessed via Template Manager/Resource Publisher in EMIS Web.

It should comprise of an invitation and a tear-off ticket:

Invitation

The top section of the letter should detail:

- Patient name
- Patient address
- The importance of vaccination
- Advice about side effects
- Reassurance e.g. infection control measures during COVID-19 pandemic
- Advice to contact the practice if allergic to hens' eggs
- Clinic Dates and venues
- Advice about how to prepare e.g. what to wear

Ticket

The bottom section of the letter is the "ticket" which the patient will take to the vaccination clinic. This should detail:

- Name
- Patient number
- NHS number
- Barcoded NHS Number x2
- Current contact details with space for the patient to update their details

Example Letter

Adding the Barcode

How barcodes are constructed

A barcode is merely a font but must have asterisk at each end for barcode scanner to recognise it.

e.g. 123456789 must be changed to *123456789*

 Also any standard keyboard character should be added at the end to prevent the empty space after the number from being read as a "return key" e.g. *123456789*x

Both the number and the asterisks should be highlighted and the font changed to "Free 3 of 9" barcode font (note that the "x" is not highlighted)

*123456789*x   → |||||||||||||||||x

> **Tip:** It is worthwhile to experiment using different sizes of font to see which works best with your barcode scanner

Adding the Free 3 of 9 Barcode Font to Your Computer

The Free 3 of 9 font must be installed on your computer. It can be downloaded from:
https://fonts2u.com/free-3-of-9-regular.font

- Open the downloaded file and click "Install" in the top left corner of the window. Contact your local IT Department if the installation is blocked by security software.

Barcoding the NHS Number Merge Field in EMIS Web

Following the convention described above:

- Insert the NHS Number merge field and remove any spaces at the end.

  NHS Number

- Add an asterisk to each end of the merge field

  NHS Number

- Add any keyboard character, immediately after the right-hand asterisk

  *NHS Number*x

- Highlight the asterisks and merge field but not the additional character

- Change the font to "free 3 of 9"

  The end result looks a little odd due to the presence of lower case characters in the merge field which are not bar code compatible; do not be perturbed by this. When the document is merged, the EMIS merge field will be replaced by numbers and the barcode will appear as expected

  |||||||||||umber||x (before merging)   → |||||||||||||||||||||x   (after merging)

Print, Test, Embed Font & Save

- Test merge the document for a single patient and print it
- Open Notepad and scan the barcode on the printed document
- Compare the scanned NHS Number with the patient's NHS number
- Depending on your method of printing and dispatch, you may need to embed the fonts used in the document. The barcode font is not common to all computers so if the font is not embedded, the NHS number may be converted back to a standard text font when the final merge document is opened for printing. It is therefore recommended that the font is embedded:

  - With the document open, click the Office Button (note this is next to the Home tab and partially obscured by the document title):
    - Click "Word Options"
    - Click "Save" (in left hand column)
    - Tick "Embed Fonts in the File"
    - Save the change
- Save the document template in the usual way
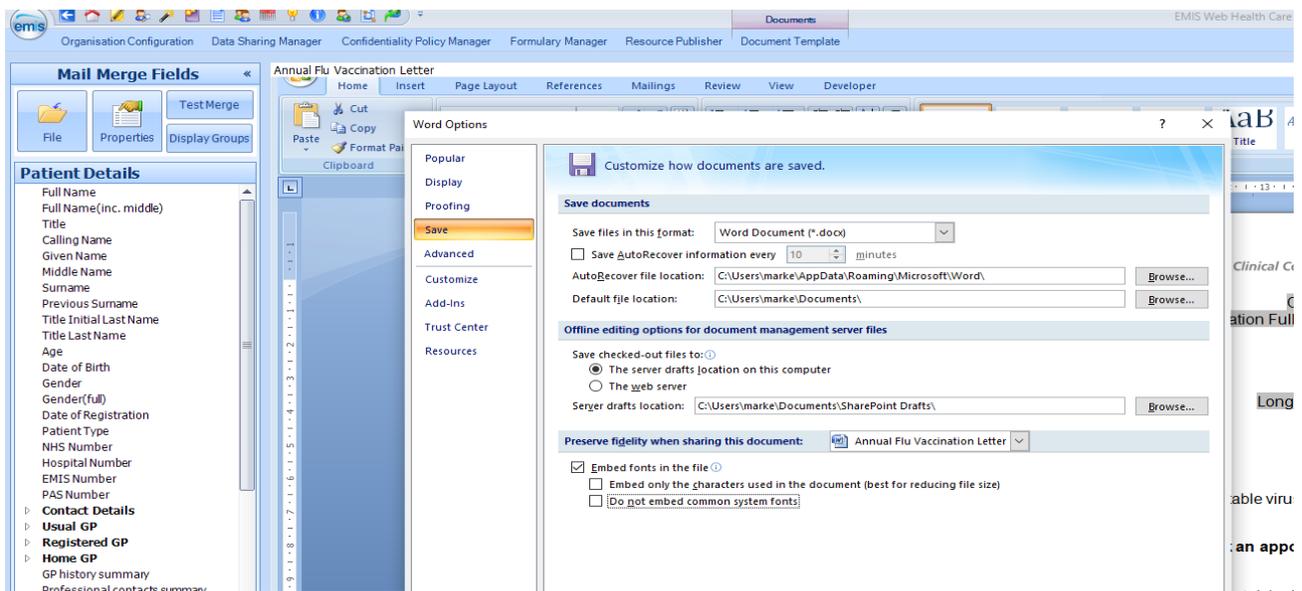
Mail Merge

You should use the mail merge function within EMIS web in the usual way.

Printing and Dispatch

It is highly recommended that a mailing service is used to print and dispatch the letters. These services usually offer postage at a competitive price and save considerably on the physical and human resources required to print and post. Docmail also, very helpfully, provides a print server which, once installed, enables the process to be completed by simply printing to the Docmail Print Server.

Important: You should check any proof letters carefully using a barcode scanner to ensure that the NHS number barcode has been created successfully. Any mistakes at this stage could be extremely costly!

Clinic Procedure

- Patient joins queue of patients – Signage and staff ensure that the patient has ticket ready and has removed outer layers of clothing. A verbal check about allergies etc. can also be carried out at this stage.
- Patient hands ticket to clinician at time of vaccination
- Ticket placed in one of two containers (left arm / right arm)
- Vaccination given

Note: If more than one batch of vaccine is used, an appropriately labelled container of right and left arm tickets will need to be created for each batch.

Creating Lists of Patients

The aim is to create two lists for each batch of vaccine administered:

- Patients vaccinated in the left arm
- Patient vaccinated in the right arm

The following procedure for patients vaccinated in the right arm, should be repeated for patients vaccinated in the left arm:

- Open a new document in Notepad
- Insert the cursor at the start of the document and scan the first ticket
- Each time a barcode is scanned the cursor should automatically move down to the next line in the document, ready for the next barcode to be scanned
- Scan all of the tickets of patients vaccinated in the right arm

Once all of the tickets have been scanned a column of NHS numbers will have been created

Barcode Scanning Tips
If you are unsure if you have scanned a ticket, scan it again. EMIS will remove duplicates automatically when you import the list so this will do no harm.
Some of the tickets will be creased etc and the barcode unclear. It is still often possible to scan the barcode. However to ensure accuracy, you should cross reference the number which scans into Notepad with the backup NHS number printed in standard font. You should include a second barcode on the ticket as it is rare for both of these to be unusable due to wear.

Saving the List in the Correct Format

EMIS requires the Notepad document to be saved as a .txt file (the default file type for Notepad).

In Notepad:

- Click "File" > "Save As" and select a secure drive/folder
- Name the file so that you can differentiate between the right arm list and the left arm lists (and between different batches if applicable) e.g. "Flu Vaccination 20th Sept RIGHT ARM – Batch 123.txt"
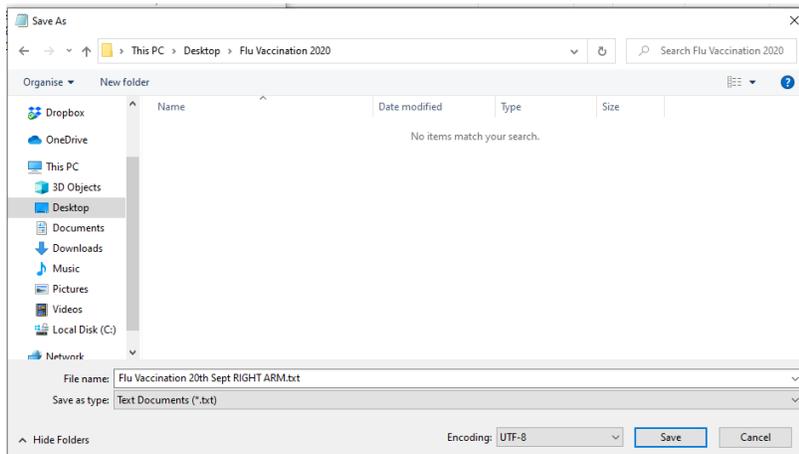
Importing the List of Patients into EMIS Web (Single Practice Clinic)

In EMIS Web:

- Click "Reporting" → "Population Reporting"
- Create or navigate to an existing folder on the left window pane, in which to save the list of patients
- Once the target folder is selected, click "Add" → "List of Patients" and a new window will open.
- Assign a name to the list you wish to create and add a description e.g. "Flu Vaccination 20th Sept RIGHT ARM – Batch 123"
- Click "Import" and a new window will open to enable you to browse to the txt file containing the list of NHS numbers
- Select the saved txt file and click "Open"

EMIS Web will analyse the list of NHS numbers and match them to patients. This may take a moment or two to complete.

The imported list will appear in the selected folder, in the same way that a search population is usually displayed. The vaccination data can be added to all the patients on the list as a batch process.

> **Data should be entered on the databases of all practices involved as soon as possible after the vaccination clinic.** This will prevent difficulties, should any patients leave the practice soon after being administered the vaccination.

Importing the List of Patients for Multiple Practice Clinics

The barcoded system can be used when vaccinating patients from multiple practices at a single site/clinic. The list of patients should be created and imported as described for single practice clinics above. During the importation process, EMIS Web will recognise patients who are, *or have been,* registered at the practice where the list is imported; all other NHS Numbers will be ignored. If a patient has been registered at one of the practices and subsequently registered at another, EMIS web *will* recognise the NHS number and *will* add the data even though the patient is no longer registered, which is clearly undesirable. To manage this issue, a further step is required to filter out these patients before batch adding the data. The following process should be carried out at each participating practice.

- Import the list of NHS Numbers as described in the previous section (Importing the List of Patients into EMIS Web (Single Practice Clinic))
- Download the search "Flu Clinic Own Practice Filter" using the link below, and import it into folder containing the imported list – This search identifies patients who are currently registered at the practice with regular registration type.
  https://www.dropbox.com/s/8ff29knxvgw2g7l/Flu%20Clinic%20Own%20Practice%20Filter.xml?dl=0
- Select "Properties" for the imported search file
- In the "Based on" section, select the "Results from" radio button
- Click the magnifying glass to browse to the imported list of patients
- Click OK
- Run the "Flu Clinic Own Practice Filter" search
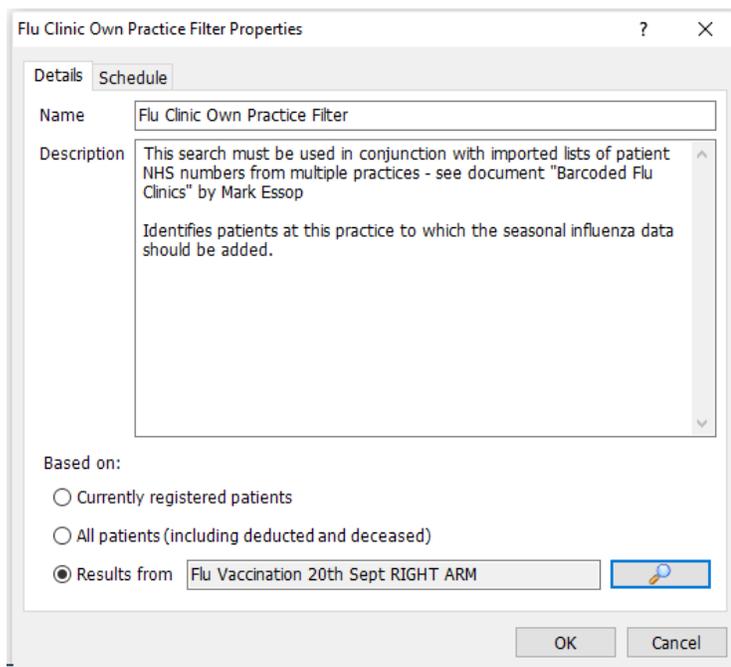
- Batch add the vaccination data (described in the next section) to the records of patients included in this search result
- Repeat the filtering process for each imported list

Batch Adding the Vaccination Data

- Select "Batch Data Manager" from the tabs in the Population Reporting screen.
- Click "Add" → "Clinical Code" and the "Add Batch Data" window will open.

- Click on the magnifying glass next to the "Batch Add" field to select the seasonal influenza vaccination code. The "Add a Code" window will open
- Browse to the correct code and double-click it. A pane will appear at the bottom of the "Add a Code" window, enabling the entry of the flu vaccination details

- Complete the details ensuring that the "Date of Entry" field contains the *date that the vaccinations were actually administered* rather than today's date
- Click "OK" and you will return to the "Add Batch Data" window
- Complete the description field (this will appear only in the Batch Data Manager screen and not in the patient record)
- In the "List Type" field select "Search Population (Included)"
- In the "Search Population Included" field, browse to the folder containing the imported list of patients. *It is critical that you make the correct selection at this point*
- Click "OK"

A "Batch add clinical code" confirmation window will open asking you to confirm you wish to make the batch change

- Ensure that you check all the details are correct as you will only have a 7 day period within which you can undo the batch addition

- Click "Add Batch" to confirm you wish to make the batch change

The batch change status will appear as "running." It may take several minutes for the process to complete and this will be confirmed by the status appearing as "Complete." (You may need to periodically click the "Refresh" button to update the status)

- Check that the process has succeeded by viewing an included patient's Care History

System Requirements

Microsoft Office

Emis Web

Notepad

Free 3 of 9 font installed

Docmail Print Server (recommended)

USB barcode scanner

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