



NCIS GUIDE

Barcode Functionality in the ACU

1 Background

Barcode functionality can be used in the Aseptic Unit in two settings

- During lot management
- During tray set up

In order to understand barcode functionality in these setting it is necessary to distinguish between the two types of barcodes found on a product;

1. Linear barcode- this contains the EAN number (13 digits number printed below the barcode) and is unique for each product and strength.



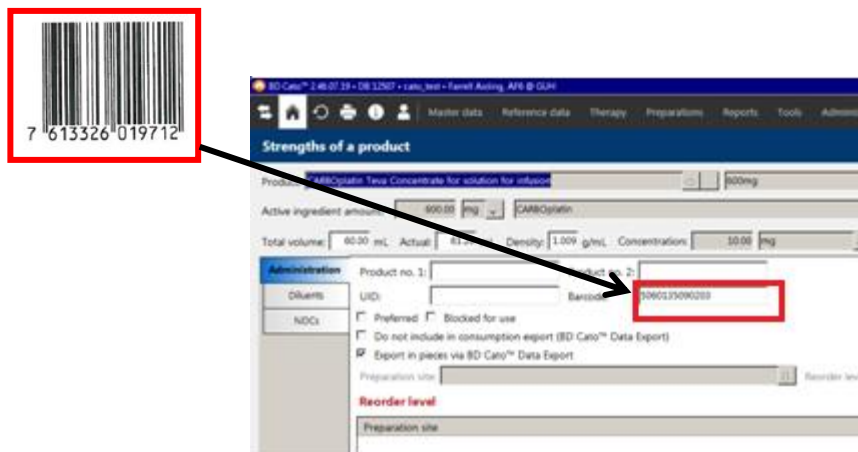
2. Matrix barcode- contains information about product identification (EAN or GS1 numbers), expiry and lot (batch) number.



- All barcode scanners used with NCIS in the Pharmacy must be installed with the most up to date drivers for that device and configured as Serial Scanners to work with Matrix Barcodes
- Test all newly installed barcode scanners in lot management and tray verification using both correct and incorrect matrix and linear barcodes to ensure correct operation

2 Lot Management

If a drug product has a 13-digit EAN code it will be entered into the Master Drug File, this allows the barcode to be used during Lot Management. *Note: entering the EAN number in the Master File is completed by the NCCP*

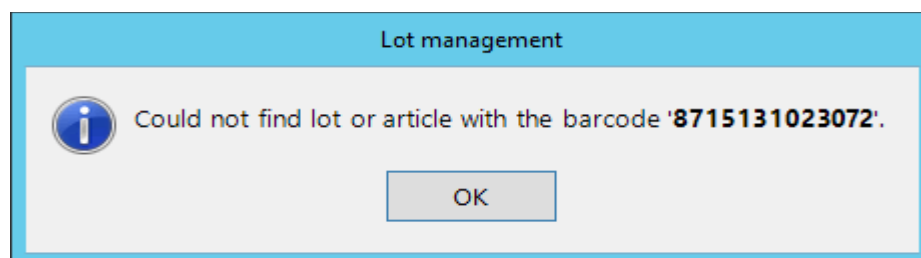


2.1 Scanning the Linear Barcode

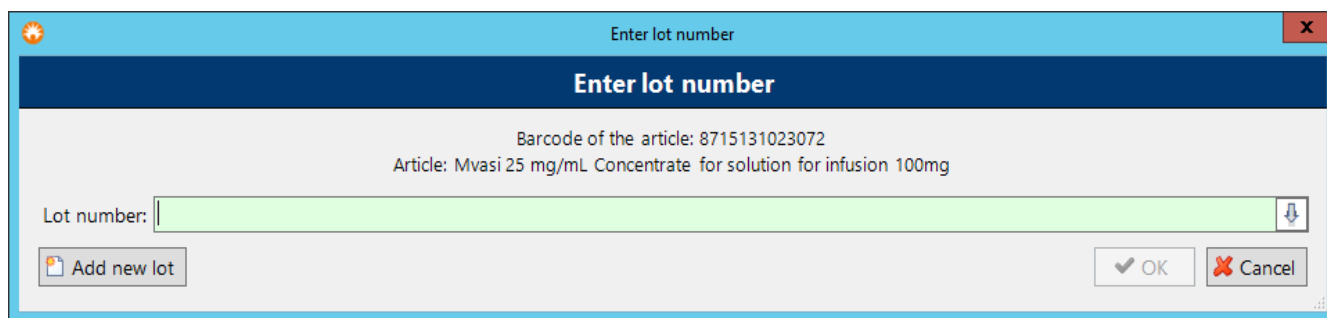
- If the linear barcode is scanned into the designation field, the system will identify the product strength associated with that linear barcode.



- If there are no product strengths in the NCIS drug file with the scanned barcode the following screen will appear

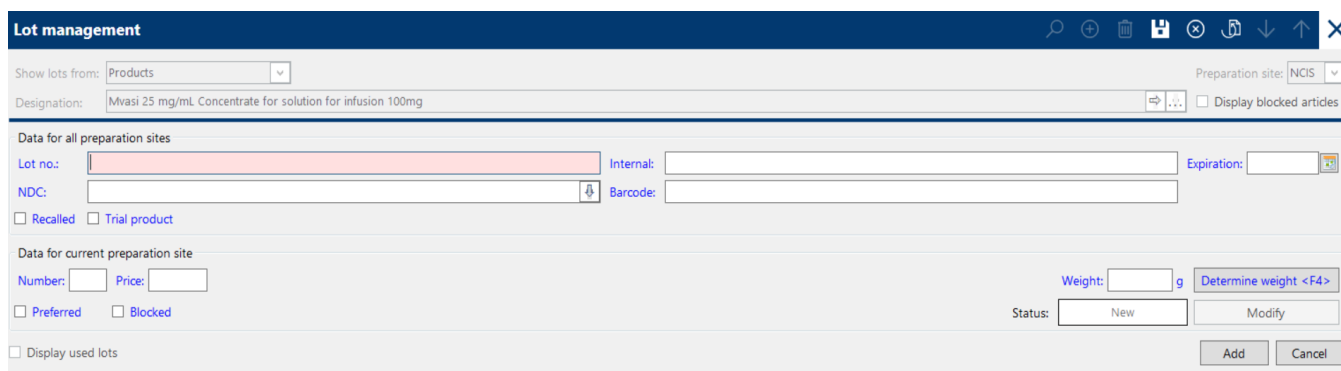


- In this case the user needs to send a picture of the box, folded flat, making sure to include both linear and matrix barcodes to ncis@cancercontrol.ie so the drug can be built on the system
- When you scan a linear barcode for a product that has been set up the following screen will appear

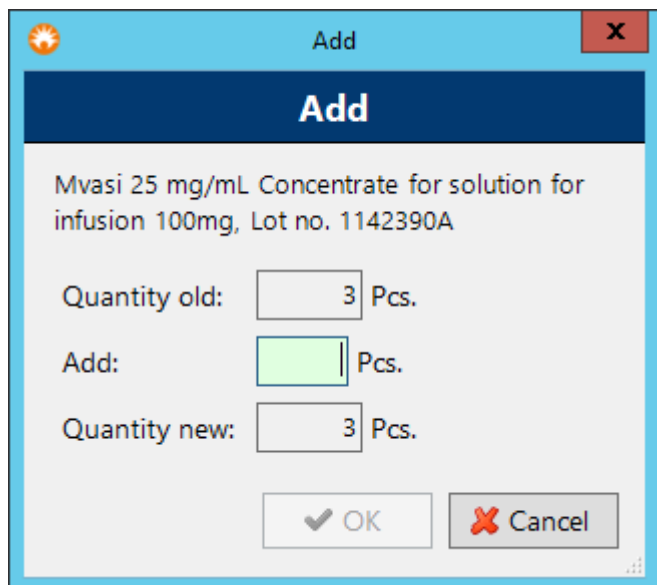


Search for your lot number using the drop-down menu

- If the lot is not available at the site then click on Add new lot and manually enter the lot and expiry



- If the lot is available from the dropdown list then select the lot number and press ok, the user will then be presented with an add lots pop up where they can update exactly how many products they are adding



2.2 Scanning the Matrix Barcode

- If the matrix barcode is scanned into the designation field, NCIS will identify the product strength as well as the batch and expiry

The screenshot shows the 'Lot management' window. At the top, there's a menu bar with options like Master data, Reference data, Therapy, Preparations, Reports, Tools, and Administration. Below the menu, there's a 'Show lots from:' dropdown set to 'Products'. The 'Designation:' field contains a barcode: '010761332601974321100000211350141721043010H0356H13'. To the right of the designation field, there's a 'Preparation site:' dropdown set to 'TRAIN' and a checkbox for 'Display blocked articles'.

- If there is no product strength in the NCIS drug file that matches the barcode additional options will be made available, In this case the user needs to send a picture of the box, folded flat, making sure to include both linear and matrix barcodes to ncis@cancercontrol.ie so the drug can be built on the system
- If the user scans the matrix barcode and they are the first site to scan the product strength with the encoded lot they will be presented with the following message

The screenshot shows a message box titled 'Lot management'. It contains an information icon and the text: 'No lot found with the GS1 barcode '010761332601974321100000211350141721043010H0356H13''. Below the text is an 'OK' button.

- Once the user has pressed OK they will be presented with a pop up box where they will be asked to choose the lot from the drop down menu, or, if the lot is not there, click add new lot

The screenshot shows a pop-up box titled 'Enter lot number'. It has a blue header with a close button (X). The main area displays the 'Barcode of the article: 010761332602087921100000193068651723063010B2218H23' and the 'Article: Kadcyla 20mg/mL Powder for solution for infusion 160mg'. Below this, there's a 'Lot number:' field with a dropdown arrow. At the bottom left is an 'Add new lot' button, and at the bottom right are 'OK' and 'Cancel' buttons.

- Once the user has clicked add new lot the lot management page will have auto populated with the lot number and the expiry so the user will just have to enter the amount they are adding and, if they choose, they can also enter a price

The screenshot shows the 'Lot management' page with the 'Designation:' field auto-populated with 'Kadcyla 20mg/mL Powder for solution for infusion 160mg'. Below this, there's a section for 'Data for all preparation sites' with fields for 'Lot no:' (B2218H23), 'Internal:', 'Expiry:' (30/06/2023), 'NDC:', and 'Barcode:'. There are checkboxes for 'Recalled' and 'Trial product'. Below this is a section for 'Data for current preparation site' with fields for 'Number:', 'Price:', 'Weight:' (g), and a 'Determine weight <F4>' button. There are also checkboxes for 'Preferred' and 'Blocked', a 'Status:' dropdown (set to 'New'), and 'Add' and 'Cancel' buttons. At the bottom left, there's a checkbox for 'Display used lots'.

- If the user scans the matrix barcode and the lot number already exists in another prep site but not in theirs the designation field will populate with the drug, the brand and strength

Show lots from: Products

Designation: Gemcitabine 40 mg/mL Actavis Concentrate for solution for infusion 2000mg

Data for all preparation sites

Lot no.:

- From here the user clicks the 'New' button, once this is pressed the lot number and expiry fields will be open to enter information
- The user can then scan the matrix barcode again and the lot number and expiry fields will auto populate with the correct information
- Once this is done the user can enter the amount of stock they are adding and a price if they so choose
- **Do not enter a barcode in the Barcode or Internal Number Fields**

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Master data Reference data Therapy Preparations Reports Tools Administration

Lot management

Show lots from: Products Preparation site: CGH

Designation: Gemcitabine 40 mg/mL Actavis Concentrate for solution for infusion 2000mg ... ☐ Display blocked articles

Data for all preparation sites

Lot no.: 08A5042 Internal: Expiration: 30/04/2022

NDC: Barcode:

☐ Recalled ☐ Trial product

Data for current preparation site

Number: Price: Weight: g Determine weight <F4>

☐ Preferred ☐ Blocked Status: New Modify

☐ Display used lots Add Cancel

Lot no.	Status	T	Type	Expiration	Total	In prep.	Used	In use	Remainder	Avail.	Price	Weight (g)

Show consumption details Print barcode + - ?

- If the user scans the matrix barcode and the lot number already exists in the users prep site they will be presented with the add lots pop up where they can enter how many lots they are adding and press ok

2.3 Adding a new lot and manually adding products that don't scan

- Search for the product by either free-typing the drug name into the search box or by scanning the matrix barcode
- When the correct drug has been found click 'new'

- The Lot Number and other fields will now be open for entering information
- If the matrix barcode is scanned into 'Lot no' field the lot number and expiry fields will be populated (See screenshot below). The number of units can then be added manually.
- In some cases e.g. dose banded products or products that don't contain a barcode, the barcode cannot be scanned. In this scenario the Lot and Expiry can be added manually into this screen
- Along with the number of units you are adding to the system you can also add a price



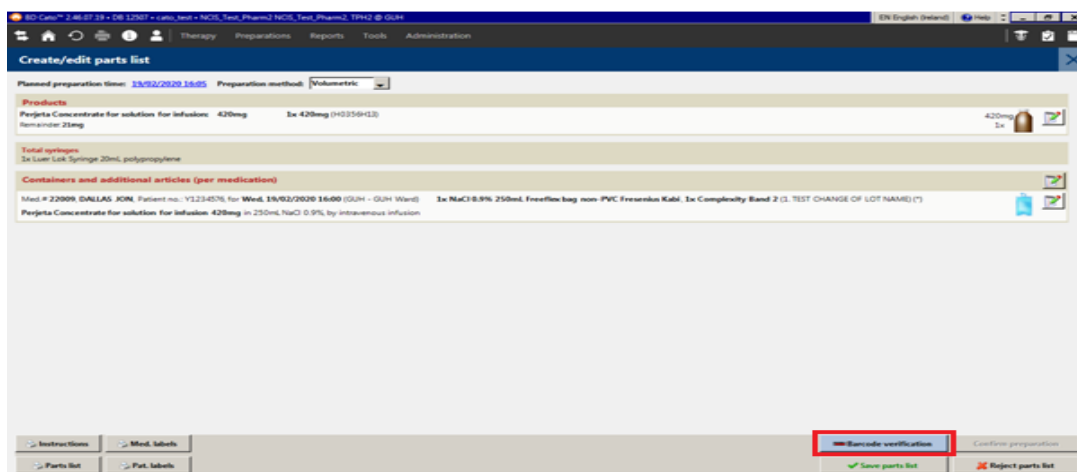
- The Internal box is not generally used in NCIS, however if needed additional information can be added here.
- The NDC box is used to insert the manufacturer of outsourced dose banded products
- **NEVER complete** the Barcode or enter a barcode in the Internal field as any barcode entered here will override the barcode in the drug file

2.4 Setting Blocked or Preferred Lots

NCIS will select lot numbers of shortest expiry to use in preparations. This can be overridden by marking lots as 'preferred' or 'blocked'. Preferred lots will be selected ahead of shorter expiry lots. Blocked lots will not be selected for use.

3 Tray set up

- Once pharmacist verification has occurred the medication will be available in the 'set up preparation' screen
- Click on the medication to create/edit the parts list. NCIS will select the Lot Numbers with the shortest expiry, they can also be changed if required. Once Lots are selected click 'barcode verification' to check the trays contents.



- The barcode verification screen shows which products can be scanned to verify and which ones need to be verified manually.

- Products that have a red highlight can be barcode verified, as shown below:

Prod. no.	Lot no.	Status
	543Q623632	0/1

- Products without a red highlight must be verified manually, as shown below:

345123412341234	1
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4 Barcode verification of Trays

To barcode verify products which may be scanned, either the Matrix Barcode or Linear barcode can be scanned. However, the behaviour of each barcode type needs to be considered.

4.1 Correct matrix barcode scanned

NCIS compares **both** the **lot number** and the **product barcode** of the scanned product to the information in Masterdata. If this matches the product will be verified.

Create/edit parts list

Planned preparation time: 21/02/2020 12:17 Preparation method: Volumetric

Products		
CARBOptatin Teva Concentrate for solution for infusion 400mg Bismarsen 50mg	3x 150mg (293842118947112486)	150mg 3x
Total syringes		
1x Luer Lok Syringe 50mL polypropylene		
Containers and additional articles (per medication)		
Mix # 220SR DALLAS JON Patient no: Y121425% for Pst, 21/02/2020 14:08 (OLH - OLH Ward) CARBOptatin Teva Concentrate for solution for infusion 400mg in 100mL Glucose 5%, by intravenous infusion	1x Glucose 5% 100ml, Bag Vialto non-PVC Baxter (BC1356), 1x Complexity Band 2 (1; TEST CHANGE OF LOT NAME?)	

4.2 Incorrect matrix barcode scanned

NCIS compares **both** the **lot number** and the **product barcode** of the scanned product to the information in Masterdata. If this does not match the product will not be verified and the yellow banner shown below will appear on screen.

No matching entry has been found in the list for the scanned article. Please check the selected article.

4.3 Linear barcode scanned of correct product

NCIS compares **only** the **product barcode** of the scanned product to the information in Masterdata. When this matches, the product is verified.

NOTE: When the linear barcode is scanned at this point only the correct product identity can be verified, lot number is not considered.

4.4 Linear barcode scanned of incorrect product

NCIS compares **only** the **product barcode** of the scanned product to the information in Masterdata. If this does not match the product will not be verified and the yellow banner shown below will appear on screen.