



Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive



NCIS Training Guide

For Recording Volume Checks

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1. Background

NCIS.Med provides a solution for compounding SACT and other associated drugs. There are always challenges when moving from a predominantly paper based system to an electronic system, including documentation of preparation steps. This guide gives some of the options available in NCIS.Med for recording the volume check during volumetric preparation.

2. Guided Preparation

It is possible to undertake preparation using a Guided Process in NCIS.Med. This usually involves the preparer using a screen inside or near the isolator which gives step by step verifiable instructions at each preparation step.

1. For guided preparation where a technician is compounding in an isolator with a screen, the technician doing the compounding is logged in (green box in Figure 1).
2. In the bottom left corner of Figure 1 (red box), a second person logs as the “assistant/check.”
3. The responsibilities of this “assistant/check” should be defined in local workflow processes, but could, for example, be a technician/pharmacist who does volume checks during compounding.

The screenshot shows the NCIS.Med 'Preparations' screen. At the top, there's a navigation bar with icons and a menu. Below it, a table lists preparations. A 'User identification' dialog box is open in the center, prompting for 'Assistant/check' user name and password. At the bottom left, a red box highlights the 'Assistant/check: <No selection> Log on' area. Other buttons like 'Prepare <ENTER>', 'Cancel interrupted preparation <F6>', 'Set up preparation <F4>', and 'Reconstitute in advance <F7>' are also visible.

Prep. no.	Product(s)	Administration	Patient(s)	Unit(s)	Medication(s)
V 1032	DOXOrubicin Teva Concentrate for solution for infusion	Wed, 22/04/2020 08:00	Cobb Frida	MUH - MUH Ward	I 18226

Details for selected preparation
1: Med. no. 18226: DOXOrubicin Teva Concentrate for solution for infusion 98mg Bolus by intravenous injection over 15 min, Frida Cobb, No unit

Prepare <ENTER> Cancel interrupted preparation <F6> Start preparation directly (barcode):
Assistant/check: <No selection> Log on Set up preparation <F4> Reconstitute in advance <F7>

Figure 1: Assistant/check log in screen

- Working through the steps of the guided preparation, depending on local workflow, it is possible to choose where checks take place. The preparation can be interrupted if a different volume checker needs to take over for some reason (using the F3 function key), it is also possible to skip certain checks etc.:

Med. no. 21086: Herceptin intravenous Powder for solution for infusion 483mg in 250mL NaCl 0.9%
250mL Freeflex bag non-PVC Fresenius Kabi by intravenous infusion over 90 min, MARY MORONEY, MUH -
MUH Ward for 18/06/2020 08:00

Achieved: 0mg Act. ingr. withdrawn (Herceptin intravenous Powder for solution for infusion) Prescribed: 483mg
0%

Prescribed active ingredient amount: 483mg
Achieved active ingredient amount: 0mg (0%)

Draw up from: 1. vial Herceptin intravenous 150mg (Lot: 74812937891230758)
WHOLE CONTENT: 7.20mL solution

Thereafter in the syringe: 7.20 mL

<F1> Transfer solution directly
<F3> Skip medication
<F6> Skip withdrawal check
<F8> Select another vial
<ENTER> Continue

1x Complexity Band 3 (1. USE THIS BAND, MUH) (*)

Figure 2: example of guided preparation step

- When the preparation is completed, there are a number of places where the preparation of the product can be traced. When using the guided preparation method each preparation step is documented in real time, In the documentation screen (Figure 3), the “report for the preparation” can be generated (figure 4), which includes the preparer and assistant check details, or a detailed “preparation log” (figure 5) which outlines every step of the preparation.

Documentation

Filter by: Period: Today (from 25/06/2020 to 25/06/2020) Refresh

Search med. no.: Dosage form: Preparation site: MUH

Search prep. no.: Patient: Deceased Blocked

Prep.no.	Type	Products	Date	Start	End	Prep.
1103	Vol.	Herceptin intravenous Powder for solution for infusion	25/06/2020	10:52	10:53	COL
1104	Vol.		25/06/2020	11:01	11:03	COL
1105	Vol.		25/06/2020	11:05	11:05	COL
1106	Vol.	DOCetaxel Accord Concentrate for solution for infusion	25/06/2020	11:06	11:07	COL

Print report for this preparation Print log

Medications of the selected preparation:

Med.no.	Patients	Ordered dose	Actual dose	Dosage form
21085	MS MORONEY MARY	483mg	483mg	Herceptin intravenous Powder for solution for infusion

Medication label Show label Print label Print report

Figure 3: Documentation screen

Active ingredient quantities

Volume	Active ingredient quantity	Time	Prep. (asst.)	Vial's UID	UID
1.4mL	29.4mg	25/06/2020 10:53	COL (muhph4)	48578, 48579, 48580, 48581	692
21.6mL	453.6mg	25/06/2020 10:53	COL (muhph4)		693
Product		Nominal active	Actual active		Deviation

Figure 4: Extract from preparation report

Preparation log (Volumetric)

1/3

Preparation date: Thu, 25/06/2020, from 10:52 to 10:53 h

Prepared by: COL

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1 [10:52:14] PREPARATION NO. 1103 STARTED ON 25/06/2020 AT 10:52 (BD Cato™ Version: 2.46.6.11)
2 [10:52:14] Assigned vials:
3 [10:52:15] 1. vial Herceptin intravenous 150mg (Lot no.: 74812937891230758); UID: 48578
4 [10:52:15] 2. vial Herceptin intravenous 150mg (Lot no.: 74812937891230758); UID: 48579
5 [10:52:15] 3. vial Herceptin intravenous 150mg (Lot no.: 74812937891230758); UID: 48580
6 [10:52:15] 4. vial Herceptin intravenous 150mg (Lot no.: 74812937891230758); UID: 48581
7 [10:52:15] Volumetric preparation
8 [10:52:15] Computer name: LAPESP7074, Preparer: O Leary, Caoimhe (COL), Assistant: pham4, MUH (muhph4)
9 [10:52:15] Preparation settings: NCIS preparation settings for volumetric workflow
10 [10:52:15] MESSAGE: "Inject into: 1. vial Herceptin intravenous 150mg (Lot: 74812937891230758) 7.20mL Water for Injections
100mL vial glass Hameln (Lot: 1325315) F2 Do not reconstitute vial now ENTER Continue"
11 [10:52:15] KEY: Key 'ENTER' was pressed!
12 [10:52:15] Volume: 7.2mL
13 [10:52:15] NOMINAL DILUENT INJECTION: Reconstitution process 1 for Vial 1, "Water for Injections", Prescribed Volume
7.200mL, equiv. to 7.2mL (7200mg), Density 1.0000000g/mL
14 [10:52:15] ACTUAL DILUENT INJECTION: Injection status: "Okay", Injected diluent = 7.200g, equiv. to 7.200mL
15 [10:52:15] SAVED DILUENT INJECTION: Injection status: "Okay", Injected diluent = 7.200g, equiv. to 7.200mL, Current diluent
mass in vial: 7.200g, Current Total Mass in Vial: 7.351g
16 [10:52:15] MESSAGE: "Inject into: 2. vial Herceptin intravenous 150mg (Lot: 74812937891230758) 7.20mL Water for Injections
100mL vial glass Hameln (Lot: 1325315) F2 Do not reconstitute vial now ENTER Continue"
17 [10:52:20] KEY: Key 'ENTER' was pressed!
18 [10:52:20] Volume: 7.2mL

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Figure 5: Extract from preparation report

3. Non-Guided Preparation

It is also possible to use a more manual process where preparation is confirmed without utilising the guided preparation pathway.

- When it comes to the “confirm preparation” functionality, there are a number of different options – the combination and method used is governed by local processes and workflows:
 - For a more paper-based approach, print out the preparation instructions and/or the parts list, and use these as worksheets for the preparation
 - It is also possible to print the med labels button to print in-isolator labels

Create/edit parts list

Planned preparation time: 25/06/2020 11:21 Preparation method: Volumetric ☐ Display remainders in all storages

Products

DOCEtaxel Accord Concentrate for solution for infusion: 1x 160mg (246324626) 160mg 1x

Remainder: 40mg

Total syringes

1x Luer Lok Syringe 10mL, polypropylene

Containers and additional articles (per medication)

Med.# 21088, MORONEY MARY, Patient no.: 1464750, for Thu, 18/06/2020 09:30 (MUH - MUH Ward) 1x NaCl 0.9% 250mL Freeflex bag non-PVC Fresenius Kabi (47891347893479-), 1x Complexity Band 2 (1 USE THIS BAND) (*), 1x Light Protection

DOCEtaxel Accord Concentrate for solution for infusion 120mg in 250mL NaCl 0.9% by intravenous infusion

Buttons: Instructions, Med. labels, Parts list, Pat. labels, Barcode verification, Confirm preparation, Save parts list, Reject parts list

Figure 6: options for printing instructions, parts list, in-isolator labels

- The in-isolator label has been configured to allow documentation of the preparation time, preparer and assistant details so that these can be recorded in NCIS after the preparation takes place. For example, if you don't have screens in the isolator and want the preparer/checked details captured in NCIS, these details can be added into NCIS after preparation has occurred.

IN-ISOLATOR PREPARATION LABEL


MARY MORONEY #1464750		
Planned Prep: 24/06/2020		
Admin Due: Thu, 18/06/2020	Med# 20458	
DOCEtaxel Accord 120mg Volume to add to bag: 6mL		
Add volume to NaCl 0.9% 250 mL Freeflex bag non-PVC by intravenous infusion		
Storage: 2-8 degrees Celsius	Time Prepared:	
Protect from Light	Preparer:	
	Check:	

Figure 6: in-isolator label

- In the parts list, it is possible to adjust the preparation time to the actual time the product was made (for example, if it is desirable to have expiries calculate from an actual preparation time, rather than a planned time):

Create/edit parts list

Planned preparation time: [25/06/2020 11:21](#) Preparation method

Products

DOCEtaxel Accord Concentrate for solution for infusion:	1x
120mg	

Figure 7: adjust the planned preparation time to an actual preparation time by clicking on the blue time and date

4. When clicking confirm preparation, the Preparer and the Assistant/checker is entered. Again, depending on local workflow, this could be the point where the volume checker's details are entered:

Figure 8: entering preparer and assistant details after clicking “confirm preparation”

5. In the documentation screen, as with guided preparation, it is possible to print a report for the preparation which will give the preparer and checker details. Since guided preparation was not used for this method, there will be no “print log” as the actual compounding took place outside NCIS:

	25/06/2020	11:05	11:05	COL	
	25/06/2020	11:06	11:07	COL	
	25/06/2020	11:21	11:21	COL	✓

Figure 9: print log only available where guided preparation has been used, as this logs preparation steps in real-time