



NCIS GUIDE

For Recording Volume Checks in the Pharmacy

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.

🌞 BD Cato™ 2.46.06.11 • DB 12506 • cato_usertraining 🛛 O Leary Caoimhe, COL @ MUH		_ _ _ _ ×
🛱 🏠 🖓 🖶 🚺 💄 🛛 Master data Reference data Therapy	Preparations Reports Tools Administration	🐨 🗳 📛
Preparations		×
Preparations: All Gravimetric: 0, Volumetric: 1, Assembly: 0 Г	Display only hazardous	□ Display all interrupted preparations Preparation site: MUH
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: DOXOrubian Teva Concentrate for solution for infusion 5	аятд воша ву intravenous injection over 15 min, Frida Cobb, No unit	
Prepare <enter> Cancel interrupted preparation <f6></f6></enter>		Start preparation directly (barcode):
Assistant/check: <no selection=""> Log on</no>		Set up preparation <f4> Reconstitute in advance <f7></f7></f4>

Figure 1: Assistant/check log in screen

4. 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 on the first page of the guided preparation, use the F4 function key to interrupt the preparation at any other stage), it is also possible to skip certain checks, add, remove or block vials, restart the preparation and send the preparation back to the setup screen :

Med. no. 21086: Herceptin intrave 250mL Freeflex bag non-PVC Freseni	nous Powder for solution for infusion 483mg in 250mL NaCl 0.9% us 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%
Prescribe Achieved	d active ingredient amount: 483mg active ingredient amount: 0mg (0%)
Draw up from: 1. vial Herce WHC	eptin intravenous 150mg (Lot: 74812937891230758) DLE CONTENT: 7.20mL solution
The	reafter in the syringe: 7.20 mL
<f <</f 	1> Transfer solution directly <f3> Skip medication F6> Skip withdrawal check <f8> Select another vial <enter> Continue</enter></f8></f3>
1x Complex	ity Band 3 (1. USE THIS BAND, MUH) (*)

Figure 2: example of guided preparation step

5. When you have gone through all the guided steps and there is some drug left over in the vial you will be told how much is left (*figure 3*) and asked if you want to keep this as a remainder to be used again (press F1 function key) or if you want to reject it and record the drug as a loss (press Enter)(*figure 4*)





Figure 4: example of remainder screen options

If you chose to keep the remainder you will be given a remainder number (*figure 5*), this number should be noted on the vial and a corresponding label will print with the number on it, the details of the drug, the quantity remaining and the expiry, you can then attach this label to the correct vial.

2. vial Remainder No. 563

Saved vial as remainder no. 563

<ENTER> Continue

Figure 5: example of remainder number

6. 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 6*), the "report for the preparation" can be generated (*figure 7*), which includes the preparer and assistant check details, or a detailed "preparation log" (*figure 8*) which outlines every step of the preparation.

Docume	ntation									×
 Filter by: Search m Search pr 	ed. no.:		Period: Dosage form: Patient:	Today	(from 25/06/2020 K to 25/06/2020 K)		Û	Preparation s	æ Refr site: MUH	esh
Prep.no. 1103 1104 1105 1106	Type Pr Vol. He Vol. Vol. Vol. DO	oducts rceptin int	ravenous Powder	r for solution for	r infusion	Date 25/06/2020 25/06/2020 25/06/2020 25/06/2020	Start 10:53 11:03 11:03 11:00	End 10:53 11:03 511:05 511:07	Prep. COL COL COL COL	
Medications	s of the selected	preparatio	on:			Print report for this preparation		Print lo	g]
Med.no. Patients Ordered dose Actual dose Dosage form				N	vedication lab	el	•			
21085 MS MORONEY MARY 483mg 483mg Herceptin intravenous Powder for solution for infusion v				▼ - -	Print label Print report					

Figure 6: Documentation screen

Active	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, 4858	1 692			
	21.6mL	453.6mg	25/06/2020 10:53	COL (muhph4)		693			
Product			Nomi	inal active Ad	ctual active	Deviation			

Figure 7: Extract from preparation report

Pre	paration log (Volumetric)	1/3
Prep	paration date: Thu, 25/06/2020, from 10:52 to 10:53 h	
Prep	pared by: COL	
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: pharm4, 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 Injecti 100mL vial glass Hameln (Lot: 1325315) F2 Do not reconstitute vial now ENTER Continue"	ons
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 dilu mass in vial: 7.200g, Current Total Mass in Vial: 7.351g	ent
16	[10:52:15] MESSAGE: "Inject into: 2. vial Herceptin intravenous 150mg (Lot: 74812937891230758) 7.20mL Water for Injecti 100mL vial glass Hameln (Lot: 1325315) F2 Do not reconstitute vial now ENTER Continue"	ons
17	[10:52:20] KEY: Key 'ENTER' was pressed!	
18	[10:52:20] Volume: 7.2mL	
	······································	

Figure 8: Extract from preparation log

3. Non-Guided Preparation

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

- 1. 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:
 - a. For a more paper-based approach, print out the preparation instructions and/or the parts list, and use these as worksheets for the preparation
 - b. 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		□ Dis	play remainders in all storages
Products			
DOCEtaxel Accord Concentrate for solution for infusion: 1x 160mg (246324626) 120mg Remainder-40mg			160mg 👔 😰
Total syringes 1x Luer Lok Syringe 10mL polypropylene			
Containers and additional articles (per medication)			2
Med. ≢ 21088, MORONEY MARY , Patient no: 1464750, for Thu, 18/06/2020 09:30 (MUH - MUH Ward) DOCEtaxel Accord Concentrate for solution for infusion 120mg in 250mL NaCl 0.9%, by intravenous infusion	1x NaCl 0.9% 250mL Freeflex bag non-PVC Fresenius Kabi (4789134 BAND) (*), 1x Light Protection	47893479-), 1x Complexity Band	2 (1 USE THIS 🃋 🕅
Instructions		www.Barcode verification	Confirm preparation
Parts list 😔 Pat. labels		✓ Save parts list	💢 Reject parts list

Figure 9: options for printing instructions, parts list, in-isolator labels

2. 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 #146	4750
Planned Prep: 24/06/2020	
Admin Due: Thu, 18/06/2020	Med # 20458
DOCEtaxel Accord 120mg Volu	ume 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 10: in-isolator label

3. Every time the parts list is opened the planned preparation time will automatically default to the current date and time to ensure a more accurate expiry. It is possible to change this by clicking on the blue time and date area as seen below.



Figure 11: adjust the planned 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:

				Confirm preparation	
Comments	:				
Preparer:					
Preparer: Assistant/c	heck:				
Preparer: Assistant/c	:heck:				
Preparer: Assistant/c Prepared	heck: Prep. no.	Med. no.	Patient	Preparation	
Preparer: Assistant/c Prepared	Prep. no. 5873	Med. no. 181378	Patient RACINE ELIZABETH	Preparation Fluorouracil 50 mg/mL Accord Solution for injection/infusion 3900mg • 100.17% (2404.16mg/m² BSA D q.s. to 115mL NaCl 0.9% 50mL bag Viaflo - No Overfill - non-PVC Baxter • in SV2.5 Infusor 120mL elaster	ubois
Preparer: Assistant/c Prepared Preparat	heck: Prep. no. 5873	Med. no. 181378	Patient RACINE ELIZABETH	Preparation Fluorouracil 50 mg/mL Accord Solution for injection/infusion 3900mg • 100.17% (2404.16mg/m² BSA D q.s. to 115mL NaCl 0.9% 50mL bag Viaflo - No Overfill - non-PVC Baxter • in SV2.5 Infusor 120mL elaster	ubois meri
Preparer: Assistant/c Prepared Preparat	Prep. no. 5873 tion labels	Med. no. 181378	Patient RACINE ELIZABETH	Preparation Fluorouracil 50 mg/mL Accord Solution for injection/infusion 3900mg • 100.17% (2404.16mg/m² BSA D q.s. to 115mL NaCl 0.9% 50mL bag Viaflo - No Overfill - non-PVC Baxter • in SV2.5 Infusor 120mL elaster	ubois meri

Figure 12: 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:

Preparati	ion log		25/06/2020	11:05	11:05	COL	
			25/06/2020	11:06	11:07	COL	
	Unable to print log for preparation as there are no preparation steps available.		25/06/2020	11:21	11:21	COL	V
	OK						
	Р	rint report for this pre	paration		Print log	9	

Figure 13: print log only available where guided preparation has been used, as this logs preparation steps in real-time