



# NCIS GUIDE Medication Administration

#### **1** Introduction

This guide explains the functionality used to record the administration of medication to a patient in NCIS.

This guide will outline:

- Medication Types and Administration Workflow options
  - Direct Dispense
  - Multiple Administration
  - Self-Administration
  - Barcode Medication Administration (BCMA)
- What pre-requisites in NCIS there are for administration
- Setting the 2<sup>nd</sup> check flag
- Setting the Administration Status

#### 2 Medication Types in NCIS

In NCIS.Med (BD CATO) medications are categorised as either:

- (i) Co-Medications used for supportive medications (Grey indicator)
- (ii) Infusions used for hydration fluids (Blue indicator)
- (iii) Main Medications used for SACT medications (Yellow indicator, Bold text)



Co-medications and infusions can be directly dispensed and administered once they are physician verified. As there is no medication label barcode scanning checks are not used and the administration status can be directly applied.

Main medications (SACT) requires pharmacy verification, preparation or dispensing (outsourced) and will have an NCIS medication label with a barcode. Barcode scanning checks can be used with Main Medications..



# **3** Administration options

The Administration status is used where medication is administered by NCIS users and can be applied for all medication types.

However, there are additional flags to allow for the recording of medications, that are given as part of the therapy plan, but not directly by the NCIS user, these are:

- (i) The Self Administration flag: this can be used to record that the medication was taken directly by the patient before arriving at the place of treatment. This is an option that can be used for supportive medications or Oral SACT medications that are part of the Regimen in NCIS.
- (ii) The External Administration flag: this can be used to record the medications that are given outside of the hospital by a third party service e.g. Community Intervention Team.

Any medication that is physician verified, pharmacist verified, prepared, dispensed or administered can be flagged as Self ADM or External ADM. The medication must also be administration approved.

To apply these flags select the medication then click the status/flag button and select the relevant flag.

5min	Dexamethasone Tablet 8mg • Tabs: 4 x 2mg PO	DISPENSED TRAIN
U	Administration Oxaliplatin is incompatible with 0.9% NaCl. For oxaliplatin doses ≤ 104mg use 250ml glucose 5%. Oxaliplatin administration must always precede the administration of 5-FU. Oxaliplatin may be given at the same time as Folinic Acid (Calcium Leucovorin) using a Y connector.	ADM. Remove DISPENSED
120min	Oxaliplatin 5 mg/mL Accord Concentrate for 140mg • 98.14% (83.42mg/m <sup>2</sup> BSA Dubois) solution for infusion in 500mL Glucose 5% 500mL bag Viaflo - Including Overfill - non-PVC Baxter • by intravenous infusion	Set 2NDCHECK Remove ADMINISTRATION OK
[]]}	Administration Folinic Acid (Calcium Leucovorin/calcium folinate) must be administered prior to fluorouracil. It enhances the effects of fluorouracil by increasing fluorouracil thymidylate synthetase. Calcium folinate is given in 250ml glucose 5%	Set CONS.CO-SIGN RQD bir Set EXTERNAL ADM Set FINAL QUITS'D
120min x A?	Calcium folinate 10 mg/mL Solution for injection 650mg • 100.17% (400.69mg/m <sup>2</sup> BSA Dubois) in 250mL Glucose 5% 250mL bag Viaflo - No Overfill - non-PVC Baxter • by intravenous infusion	Set FOR PHYSICIAN REVIEW
CARE:	he handwritten as an interim measure until system develonment is complete	Set SELF ADM
	Selected medications: 1	

### 4 Pre-requisites for administration

1. Medication Status must be either:

(i)	Prepared	(Except where medication
(ii)	Dispensed	is directly administered)

- 2. Admin OK flag must be applied. This 'approves' administration in NCIS.Med i.e. the patient has been approved for administration.
- 3. 2<sup>nd</sup> check flag (optional) assigned. May be applied before or after the administration to record the second person involved in checking administration. The user who sets the administration status must be different to the user who sets the 2<sup>nd</sup> check.



## 5 Three point Barcode Medication Administration

NCIS.Med uses Barcode Medication Administration (BCMA) to electronically verify medication administration at the point of care.

A user can scan three barcodes:

(i)	Their i	dentific	ation badg
🍪 User i	dentification		×
	User ident	tificatio	n
	Barcode sca	nner ready	,
User n	ame:		
Passw	ord:		
	OF	(	Cancel

(ii) The patient's local ID barcode (on patient wristband)



(iii) The medication label

😵 Scan medication barcode	:
Scan medication barcode	
Med. no. 23812	
Scan medication barcode	]
Confirm manually Cancel	

The data from these barcodes is delivered to NCIS.Med which provides a verification check and generates real-time warnings (if the incorrect information is scanned) or approvals (if the information is correct).

The Administration status cannot be applied until the



Some hospitals refer to this as "signing off hold"

#### 6 How to set Admin OK flag

Users of the following groups can set the Admin OK flag:

- (i) Physicians
- (ii) Nurse level I
- (iii) Nurse level II
- (iv) PAED NCHD
- (v) PAED Nurse level I
- (vi) PAED Nurse level II

The flag cannot be set on planned medications, it can be set on all other statuses (from physician verified onwards), and can be set in the therapy plan or from the medication list (right click on medication and click 'Set administration approved').

To set the Admin OK flag in the therapy plan select the medication or, multi select medications, and click the status flag symbol then select 'set ADMINISTRATION OK' option.



PLANNED by TRN DOCTOR1, TRNHOSD1 - Incrn83839 on 09 Jan 2023 at 12:19 Last valid dose in this status: Oxaliplatin 65mg/m<sup>3</sup> BSA Dubois in 500mL Glucose 5% by intravenous influsion + 120min PHYSICIAN-VERIFIED by TRN DOCTOR1, TRNHOSD1 - Incrn83839 on 13 Jan 2023 at 14:07 Last valid dose in this status: Oxaliplatin 140mg • 69,51% (59.09mg/m<sup>3</sup> BSA Dubois, 2.37m<sup>3</sup>) in 500mL Glucose 5% bag Viafio - Including Overfill - • by intravenous infusion • 120min ADMINISTRATION OK by TRN DOCTOR1, TRNHOSD1 - Incrn83839 on 17 Jan 2023 at 09:42

A green tick will appear beside the medication when the Admin OK flag is set and the user who set the flag along with the date and time it was set will be documented on the audit log.

#### 6 How to administer main medications

Important things to remember before administering main medications:

- The medication status must be either prepared or dispensed
- The Administration OK flag must be set

- Depending on local workflow a decision must be made about when the 2<sup>nd</sup> check should be applied (before or after the administration)
- Administration can be done in the therapy plan or the medication list
- The following user groups can administer medications in NCIS:
  - (i) Physicians
  - (ii) Nurse level I
  - (iii) Nurse level II
  - (iv) PAED NCHD
  - (v) PAED Nurse level I
  - (vi) PAED Nurse level II

All medications and infusions in NCIS have a time and date assigned to them, and can be found in NCIS.MED within a patient's Therapy Plan using the patient search window or by using the medication list (right click on the medication and select 'set administered'). When you have found your patient select the medication you want to administer, click the status/flag button and select ADM.

5				ADM.	]	$\sim$
BURSEME	NT STAT	US:				$\sim$
Feb 2023 • Interva	l: 14 days afte	r Cycle 2 Modified FOLFOX-6 - <b>6</b> 1 Day		Remove 2NDCHECK	$\oplus$	~
				Remove ADMINISTRATION OK		$\sim$
				Set EXTERNAL ADM		
07:30	5min	Ondansetron Tablet	16mg • Tabs: 2 x 8mg	🔖 Set FINALACU		
	∕ /₫ ?	PO		Set FOR PHYSICIAN REVIEW		$\sim$
07:30	5min	Dexamethasone Tablet	8mg • Tabs: 4 x 2mg	Set PRELCHECK		
	<u> ∕                                   </u>	PO		Set SELF ADM		$\sim$
	[]]	Administration Oxaliplatin is incompatible with 0.9% NaCl.				$\sim$
08:00	120min ✓ ศู ?	Oxaliplatin in 500mL Glucose 5% 500mL bag Viaflo - Inclue	<b>140mg •</b> 101.53% (86.3mg/m <sup>2</sup> BSA Dubois) ting Overfill - non-PVC Baxter • by intravenous infusion	PREPARED	Ρ	$\sim$

The user will then be asked to identify themselves, this user must be different to the person who sets the 2<sup>nd</sup> check. This is the user who will be recorded against the administration regardless of who is logged into NCIS. The users ID badge can be scanned here if it has been setup on the system.



The user will then be asked to scan the barcode on the patient's wristband.

🍪 Scan patie	nt barcode X
	Scan patient barcode
	Patient: Ms MARY QURESHI
	Scan patient barcode
	Confirm manually Cancel

Finally the user will be asked to scan the barcode on the medication matching the medication number shown on their screen.

😵 Scan medication barcode	×
Scan medication barcode	
Med. no. 23812	
Scan medication barcode	
Confirm manually Cancel	

Once all these scans have been completed the user will then be presented with an administration window to record the details of the administration. The date and time will always be current, if the date/time should be different then this can be changed. Any notes about the administration can be recorded also.

Once everything is complete click OK to save the medication as administered. If the expiry of the medication recorded in NCIS is before the time of administration a warning will appear on the screen advising the user of this.

Administration         Fluorouracil 25mg/mL IV Bolus (DB) (Division: 1 x 650mg)         Start: on 17/01/2023 III at 14:21 planned administration duration: 30 min         End: on 17/01/2023 III at 14:51         Only partly       100 %         Reason         Output       100 %         Output       100 %         Constrained       100 %	O Administration
Fluorouracil 25mg/mL IV Bolus (DB) (Division: 1 x 650mg)         Start: on 17/01/2023 at 14:21         Only partly       100 %         Reason	Administration
Start: on 17/01/2023 3 at 14:21       planned administration duration: 30 min         End: on 17/01/2023 at 14:51       Only partly         Only partly       100 %         Reason       Other starts	Fluorouracil 25mg/mL IV Bolus (DB) (Division: 1 x 650mg)
End: on 17/01/2023 3 at 14:51 Only partly 100 % Reason	Start: on 17/01/2023 at 14:21 planned administration duration: 30 min
Only partly 100 % Reason	End: on 17/01/2023 at 14:51
Reason	Only partly 100 %
OK Cancel	Reason
OK Cancel	
	OK Cancel

If the administration time differs from the planned time by more than 15 minutes, the postponement wizard will be displayed. The user can decide if the other ticked medications should be postponed to be in line with the planned order of administration.

O Postpone medications and appointments	×
Postpone medications and appointments	
Postpone: 3 h 7 min	
▼ 17/01/2023 11:14 Fluorouracil 25mg/mL IV Bolus (DB) (Division: 1 x 650mg) by intravenous injection over 30 min	Med. no. 185229
🗹 17/01/2023 11:15 Oxaliplatin 5 mg/mL Accord Concentrate for solution for infusion 140mg in 500mL Glucose 5% 500mL bag Viaflo - Induding Overfill - nor	1-PVC Baxter by intravenous infu Med. no. 185227
Only postpone originally selected item(s)	OK Cancel

#### 6.1 Part administration

If for some reason only part of the medication was administered then it is possible to record this information on NCIS. To record this the user can right click on the selected medication and click edit administration, another way of doing it would be to remove the ADM status and reapply.

The user will be asked to complete the three scan process and then they will be presented with the administration window again, click the 'only partly' box and enter what percentage of the dose was given. There is also a free text box to add any extra information.

C Administration
Administration
Fluorouracil 25mg/mL IV Bolus (DB) (Division: 1 x 650mg)
Start: on 17/01/2023 🛐 at 14:21 planned administration duration: 30 min
End: on 17/01/2023 at 14:51
✓ Only partly 75 %
Possible reasons
Adverse reaction
✓ Extravasation
Infusor did not infuse
Other-please outline below
Patient unwell
Reason
User can record extra information here about what happened
OK Cancel

All these changes and checks are recorded on the patient's therapy plan and can be accessed by dropping down the information log on each medication.

30min	Fluorouracil 25mg/mL IV Bolus (DB) by intravenous injection	<b>650mg •</b> 96.82% (387.29mg/m <sup>2</sup> BSA Dubois) • Division: 1 x 650mg	ADM. ( 2NDCHECK) PARTLY: 75%) ( TRAIN)
UNDO CAN	ссыятной рутки ростокт, ткипозот - піспозозя он тэ	Jan 2025 at 12:00	
PHYSICIAN-	VERIFIED by TRN DOCTOR1, TRNHOSD1 - mcrn83839 on 13 Ja	n 2023 at 12:15	
Last va	lid dose in this status:		
Fluoro	uracil 6/1.33mg • (400mg/m <sup>+</sup> BSA Dubois, 1.68m <sup>+</sup> )		
PHARMACIS Last va	T-VERIFIED by TRN PHARM1, TRNHOSP1 - PSI6545748 on 13 . lid dose in this status:	an 2023 at 12:18	
Fluoro Fluoro by intra	uracil 25mg/mL IV Bolus (DB) 650mg • 96.82% (387.29mg/r uracil 650mg avenous injection • 30min	<sup>2</sup> BSA Dubois, 1.68m <sup>2</sup> ) • Division: 1 x 650mg	
DISPENSED I	by TRN PHARM1, TRNHOSP1 - PSI6545748 on 17 Jan 2023 at	10:15	
ADMINISTRA	ATION OK by TRN DOCTOR1, TRNHOSD1 - mcrn83839 on 17 J	an 2023 at 10:19	
2NDCHECK	by TRN NURSE1, TRNHOSN1 - NMBI4508 on 17 Jan 2023 at 10	:22	
ADM. by Trn	Nurse2, TRNNURSE2 on 17 Jan 2023 at 14:22		
PARTLY: by 1	IRN NURSE1, TRNHOSN1 - NMBI4508 on 17 Jan 2023 at 14:36		
-	Constituent of Colorements of Lines and a star information	tion have always what have and a Administrand on 17 Jan 2022 from 1421 to 1	14.51

# 7 Administration of co-meds and infusions

The administration of co-meds and infusions can be done in the therapy plan or via the medication list and can be completed directly once the medication is physician verified. It is important to note that in order to perform this direct administration of physician verified medications the user must be assigned the prep site that they are currently working in.

Select each item individually or select multiple items, then click on the status/flag button and select ADM. The user will then be asked to identify themselves by either scanning their work ID or entering their password. Note – **the** user who is logged in must be the user administering the meds.



The user will then be presented with the administration box which acts in the same way as the box that appears when administering main meds. Here the time of admin can be changed and a comment added in the free text box if required. Once complete press ok to confirm.

Note, when direct administering from a physician verified medication only the user signed in can complete administration. If a different user is required the medication can be set to dispensed first before clicking administration.

Administration
Administration
Ondansetron Tablet (Tabs: 2 x 8mg)
Start: on 17/01/2023 at 11:43 planned administration duration: 5 min
End: on 17/01/2023 at 11:48
Only partly 100 %
Reason
OK Cancel

The medication log in the therapy plan shows the user has been marked as having pharmacist verified and dispensed the item as well as administering it all in one action. This is necessary as each medication must move through all statuses – it is clear that this is direct dispensing as each status is set at exactly the same time.

PO • 5min
PHYSICIAN-VERIFIED by TRN DOCTOR1, TRNHOSD1 - mcrn83839 on 13 Jan 2023 at 10:19 Last valid dose in this status:
Ondansetron Tablet 16mg • Tabs: 2 x 8mg Ondansetron 16mg PO • 5min
ADMINISTRATION OK by TRN NURSE1, TRNHOSN1 - NMBI4508 on 17 Jan 2023 at 15:16
PHARMACIST-VERIFIED by TRN NURSE1, TRNHOSN1 - NMBI4508 on 18 Jan 2023 at 11:43 Last valid dose in this status:
Ondansetron Tablet 16mg • Tabs: 2 x 8mg Ondansetron 16mg PO • 5min
DISPENSED by TRN NURSE1, TRNHOSN1 - NMBI4508 on 18 Jan 2023 at 11:43
ADM. by TRN NURSE1, TRNHOSN1 - NMBI4508 on 18 Jan 2023 at 11:48
Administered on 17 Jan 2023 from 11:43 to 11:48