



NCIS GUIDE

Creating a Case & Physician Management of Medications

1. Background

This guide has been developed to assist you in managing medications in NCIS. It can also act as a training guide to introduce users to the use of the system, and to support familiarity with the system. Electronic prescribing has been proven to enhance medication safety; however, it may introduce new risks such as selection errors. This guide has been designed to outline the system functionality. We hope that you get the most out of this resource and that it aids you in your use of NCIS. If you have any queries or suggestions for improvement, do not hesitate in contacting the NCIS office ncis@cancercontrol.ie

Important information about NCIS

NCIS users should use their clinical judgement when prescribing, verifying, dispensing, or administering patient treatments.

REMEMBER: Your electronic signature is considered equivalent to your written signature.

- Regimens built in NCIS are based on approved NCCP SACT Regimens. NCIS allows the modification of regimens at patient level. Use of NCIS regimens is the responsibility of the prescribing clinician.
- Do not assume that the absence of a decision support alert means that the dose is appropriate for that patient.
- The Drug File in NCIS is built based on information provided by manufacturers, regulatory bodies and research on drug stability. NCIS assigned drug stability can be adjusted locally.
- A number of laboratory results may be displayed in NCIS and may also be used in dose and decision support calculations. Laboratory results should continue to be reviewed outside NCIS as per the local hospital policy.

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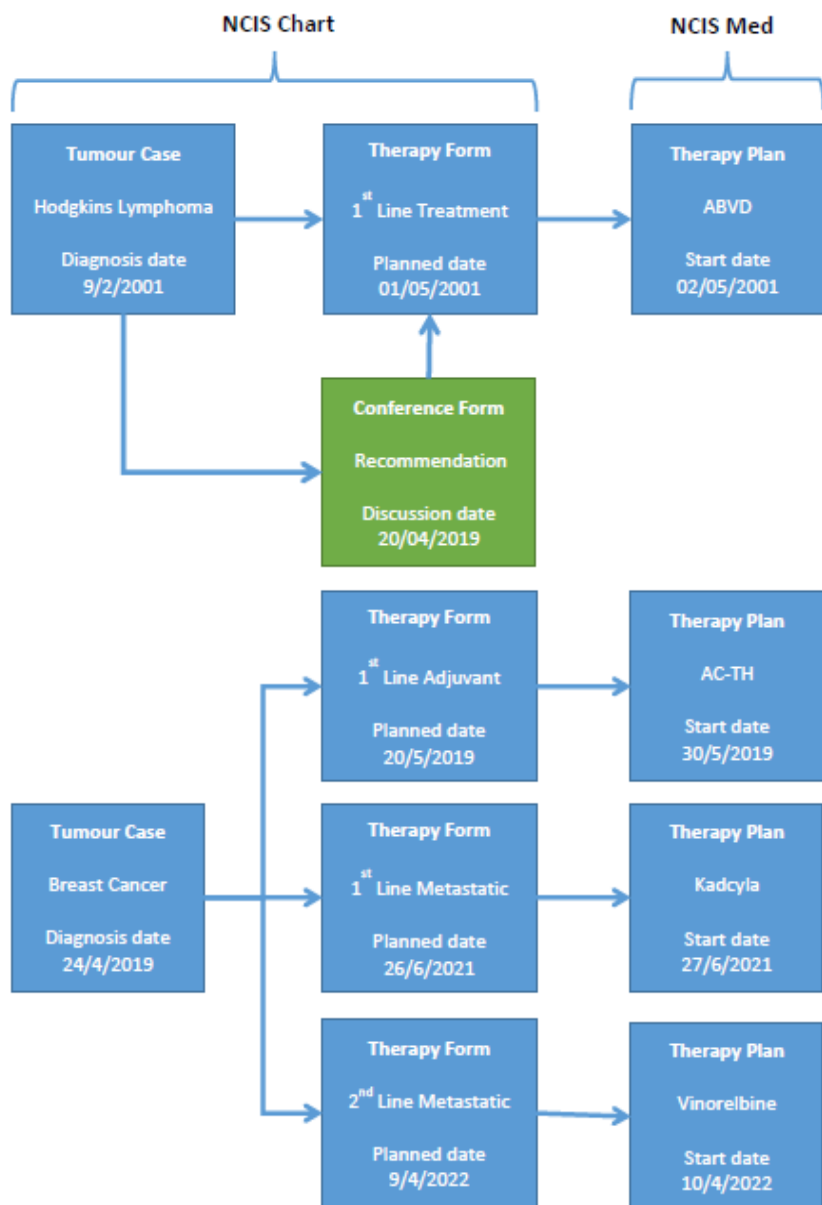
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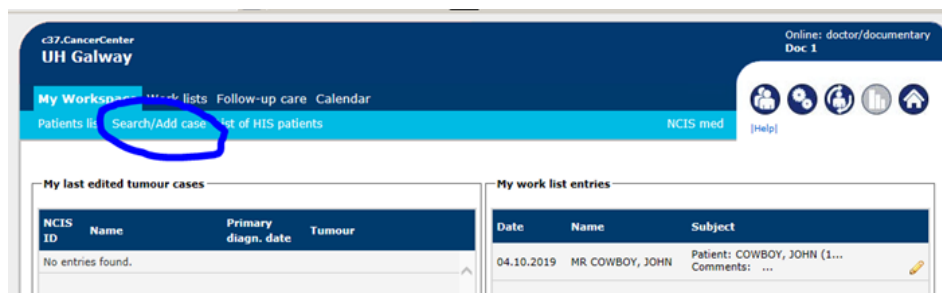
2. Creating a Tumour Case in NCIS.Chart

The Tumour Case is created in NCIS.Chart and is used for all information, progress and treatment associated with a single cancer over time in a patient's NCIS record. If the patient has another cancer a separate Tumour Case should be created. See below for an example of how an NCIS record is structured

Patient: Mrs A B – NCIS Record



In the My Workspace screen of NCIS.Chart click Search/Add case



Search for the patient

Note: this search will search return patients registered on the National NCIS Master Patient Index (MPI). It will be possible for you to view all patients that have a PAS record in the hospital(s) to which you have permission to access. Given the large number of patients in the MPI it is recommended to search using Last Name, First Name and Date of Birth. For users with access to multiple hospitals ensure to select the correct hospital when logging in.

Search/Add patient

Please enter last name, first name or date of birth

Surname

flourine

First name

mary

Date of Birth

15.08.1976

Health insurance number

or use a Hospital ID

Hospital ID

Search

Emergency access

The following patients were found

NCIS ID Hospital ID	Name	Date of birth gender	Address	Hospital
GM1234675 (GUH)	MRS FLUORINE, MARY	15.08.1976 (f)	TESTING NCIS SOFTWARE TESTING FUNCTIONALITY TEST DUBLIN ROAD DUBLIN	MPI

The search will return all patients in the MPI that match the search criteria entered

- If the patient has no current Tumour Case the Hospital will be listed as MPI
- The Patient ID for the hospital to which you are signed into will be shown
- If the patient already has an existing Tumour Case, the name of the hospital and an NCIS ID will be displayed
- The NCIS ID is a 11-digit number that is unique to each NCIS patient and is generated when a Tumour Case is first created
- If a record has become unlinked, then the NCIS ID will appear but with no local ID underneath. This record should be reviewed and established if this is the required patient and record relinked with HIS matching.

Click on the patient you wish to create a tumour case for. The following box will appear that gives the option of adding a date of initial diagnosis, the diagnosis, and the hospital to which you wish to add the case. For users with access to multiple hospitals ensure to select the correct hospital

Note: It is not mandatory to add a diagnosis or date at this point, however, to maximise the functionality available it is recommended to do so where possible. If not entered at this point it is recommended to enter the diagnosis in the Tumour Case as soon as it becomes available/agreed.

Click “New case”

Add a new Document

Surname

FLUORINE, MARY (15.08.1976)

Date of initial diagnosis

Diagnosis

Hospital

UH Galway

New case

Close

The following screen will now show. Information from the local PAS (IPMS) system will populate in this screen and should be confirmed before continuing. It is also possible at this point to add a photo of the patient by clicking the “Browse” button in the “Picture of the Patient” section. Once complete click “Save” at the bottom of the screen.

Personal information

Title

MRS

Surname

FLUORINE

x

First name

MARY

Surname at birth

Date of Birth

15.08.1976

Gender

female

Marital status

married

Ethnicity

Postal address

TESTING NCIS SOFTWARE TESTING FUNCTIONALITY

Eircode

County

Galway City

Telephone

091 47696

Telephone (business)

Telephone (mobile)

0881247996

E-mail address

Health insurance

Individual Health Identifier

i

Health insurance number

Insurance group

Picture of patient

Upload file

Browse...

The patient’s new Tumour Case will now be visible

c37.CancerCenter

UH Galway

Patient

MRS FLUORINE, MA...

D.O.B.

15.08.1976 (43)

NCIS ID

12638000070

Hospital ID

GM1234675 (GUH)

General info

Diagnostics

Conference

Assessment

Therapy

Communication

Personal info

Tumour case

Clinical history

Edit

Basic data

Referring physician

Primary consultant

Family doctor/Specialist

Comorbidities

Primary diagnosis

Primary diagn. date

01.04.2020

Primary diagnosis

C20

Malignant neoplasm of rectum

Suspicion of

Colorectal cancer

Tumour type

Localisation

Tumour biology

Diagnosis confirmation

on

Note: There are multiple fields in the Tumour Case form, some specific to the diagnosis entered. No fields are mandatory, but information entered here may be useful for MDMs and case reporting.

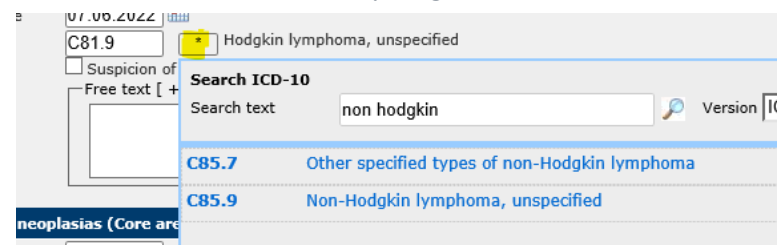
3. Changing the Diagnosis of a Tumour Case

Occasionally it may be necessary to change the diagnosis of a tumour case after it has been created. For example, if further diagnostic information becomes available. In this case we will change the diagnosis from Hodgkin's Lymphoma to Non-Hodgkin's Lymphoma

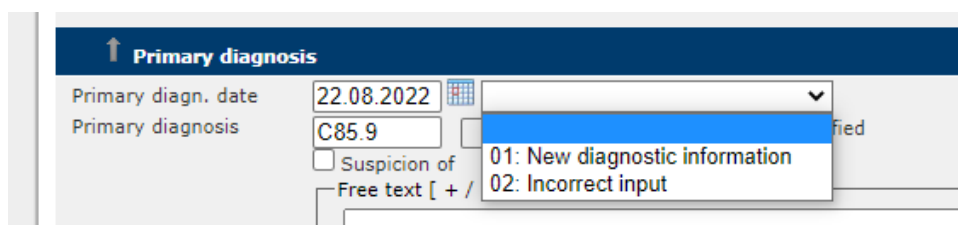
Click Edit on the tumour case window.



Click on the star beside Primary Diagnosis, search for and select the new diagnosis



A new drop-down box will appear where you can select the reason for changing the diagnosis, select and click save on the tumour case form.



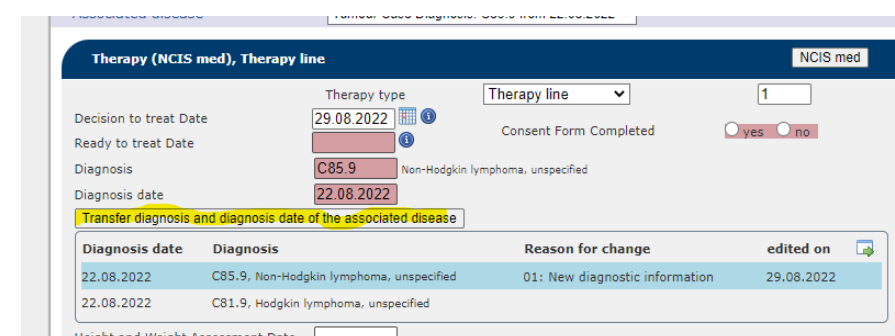
A new diagnostic history button will appear to indicate there has been a change to diagnosis. Clicking on this will show the changes to diagnosis in the tumour case



Diagnosis date	Diagnosis	Reason for change	edited on / by
22.08.2022	C85.9, Non-Hodgkin lymphoma, unspecified	01: New diagnostic information	29.08.2022 / Doc1, GC
22.08.2022	C81.9, Hodgkin lymphoma, unspecified		

Any therapy plans in the tumour case will show all the diagnoses that have been associated with the tumour case. If a therapy plan existed before the diagnosis was changed and if you wish to use the new diagnosis click 'Transfer diagnosis and diagnosis date of the associated disease'.

To transfer the diagnosis to NCIS.Med click the in-context transition button



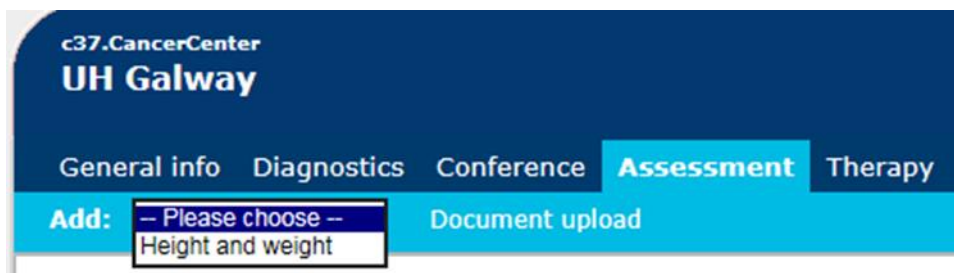
Diagnosis date	Diagnosis	Reason for change	edited on
22.08.2022	C85.9, Non-Hodgkin lymphoma, unspecified	01: New diagnostic information	29.08.2022
22.08.2022	C81.9, Hodgkin lymphoma, unspecified		

4. Entering Height and Weight in NCIS.Chart

The height and weight form in NCIS.Chart was developed specifically to allow a recorded double check of height and weight as well as for population of assessment forms and letters where applicable.

It is also possible to enter height and weight directly in NCIS.Med in the Medical Results tab. It is important to note that when signing a Height & Weight assessment form in NCIS.Chart the values will populate in NCIS.Med, however, when entering results in NCIS.Med they will not be sent to NCIS.Chart. Each site should consider this functionality and decide where and when they wish to utilise the points of height and weight entry. For example, a hospital may wish to use NCIS.Chart to gather a baseline height and weight in the out-patient clinic then use NCIS.Med only for ongoing recordings each cycle.

Click on the Assessment Tab, then Choose Height and weight from the 'Add' drop down menu.



Enter the patient's height, weight, or both, change the drop down at the bottom of the page to signed, then click save. Note:

- Height and weight do not need to be entered immediately however it is recommended to enter an initial height and weight before creating the patient's Therapy Form and Therapy Plan
- Further information may be entered in the height and weight form such as the user who checked and verified the height and weight. These fields are not mandatory and can be used if required by local processes.
- **It is essential to SIGN and SAVE the form to ensure the height and weight are populated in the Therapy Form and in NCIS.Med**

5. Creating a Therapy Form in NCIS.Chart

Therapy Forms are created within a Tumour Case, and each represents a line or type of SACT treatment. There may be multiple Therapy Forms within the same Tumour Case.

Click on the Therapy Tab and choose "Therapy (NCIS med)" from the Add drop down list.

The new Therapy Form appears:

- The height and weight and diagnosis have been populated from the Height and Weight Form and the Tumour Case respectively. Note: the height and weight value will always be the most recent value entered into a height and weight assessment form.
- The decision to treat date is automatically populated with the date of Therapy Form creation but this can be changed as appropriate
- The Ready to Treat Date will be automatically populated when the patient is planned for SACT in NCIS.Med

Fields highlighted **red** are recommended however are not mandatory to move forward with prescribing

Diagnosis date	Diagnosis	Reason for change	edited on
29.12.2022	C50.4, Malignant neoplasm of upper-outer quadrant of breast		29.12.2022
03.02.2020	R69, Unknown and unspecified causes of morbidity		

Click the NCIS Med button to Transition to NCIS.Med and create a Therapy Plan

DECISION TO TREAT DATE: The date on which it was decided that the patient required a specific planned SACT treatment. This is the date that the consultation between the patient and the Medical Oncologist/Haematologist clinician took place and a planned SACT treatment was agreed and consented by the patient

READY TO TREAT DATE: The date on which it was agreed that the patient is deemed fit to receive a specific planned SACT Treatment. The date Ready to Treat must be specified by the treating Medical Oncologist/Haematologist

6. Creating a Therapy Plan in NCIS.Med from a Regimen

Each Therapy Form is linked with a Therapy Plan in NCIS.Med. The Therapy Plan is the order for a given regimen or line of treatment and governs: prescribing, verification, preparation/dispensing and administration.

- Regimens are built in NCIS.Med on the basis of NCCP SACT Regimens
- Regimens act as order sets and are an efficient way to prescribe a treatment for a patient
- It is also possible to create a therapy plan from scratch, see next section, without using a regimen.

Any medication available in the NCIS drug file can then be used for the patient, as and when required.

When you transition in patient context (as we did in the previous step) from the Therapy Form to the Therapy Plan in NCIS.Med a linkage will be established between NCIS.Chart and NCIS.Med and information will flow between them.

After clicking NCIS.Med in the patient's Therapy Form the NCIS.Med application will launch in the patient's record and the Add Therapy Plan window will appear.

To create a therapy plan from a regimen, ensure "Create therapy plan from regimen" is ticked. This will be remembered for subsequent logins.

The screenshot shows the 'New therapy plan' window in the NCIS.Med application. The window is titled 'New therapy plan' and contains several fields for patient information and therapy plan details. The patient's name is 'Mrs. FLUORINE MARY' and her date of birth is '15/08/1976'. The 'Create therapy plan from regimen' checkbox is checked, and a green arrow points to it. Other fields include 'Patient no.', 'Unit', 'Regimen', 'UID', 'Start', 'Place of delivery', and 'Cost center'. There are also checkboxes for 'Deceased' and 'Blocked', and a 'Round dose' checkbox. The window has a 'Save' button and a 'Cancel' button.

It is now possible to:

- Select a regimen for the patient from the NCIS Regimen Library (based on NCCP SACT Regimens)
- Filter available regimens by diagnosis by selecting the check box
- Complete the planned start date for treatment (this is the date that will populate the Ready to Treat Date in the Therapy Form)
- Complete the Place of Delivery (ward or day centre where treatment will be given) and Cost Centre (Primary Consultant). **It is strongly advised to complete the Place of Delivery and Cost Centre at this point, otherwise they must be completed cycle by cycle.**

☒ Create therapy plan from regimen
 [Preview](#) [Show filter](#)

Regimen: FOLFOX-6 Modified 14 day Adj (00209.1)

☐ Only display regimens with suitable diagnosis
 Only diagnoses with the status: Active

UID: 00209.1

Start: 12/06/2023 = corresponds to day 1 in the regimen

Cycles
☒ 12/06/2023: Cycle 1 FOLFOX-6 Modified
 Repeat: 11 times Interval: 14 Days

No take home medication cycles included in regimen

Place of delivery: CUH - Oncology Heamatology Day Ward
 Cost center: GUH - Dr.

☒ Round dose

Once all fields are completed, click Save and the patient's Therapy will be planned. Click the Arrows on the brown cycle banner to view medications within each cycle.

Therapy plans
Compact
 List
 Complete
 Patient data
 Medical results
 Diagnoses
 Cumul. doses

12 Jun 2023 - 13 Nov 2023
FOLFOX-6 Modified 14 day Adj (00209.1) Version 10 • Therapy plan number: 4284

Cycles: 12 • Days: 155

This regimen is a copy of Production Regimen 00209.1 version 11. Please refer to the NCCP website and the Production environment for the most up to date version of the regimen. For users with no access to the Production environment the NCIS Office can supply a printed copy of the regimen details

12 Jun 2023 - 12 Jun 2023
Cycle 1 FOLFOX-6 Modified 1 Day

Interval: 14 days after Cycle 1 FOLFOX-6 Modified

26 Jun 2023 - 26 Jun 2023
Cycle 2 FOLFOX-6 Modified 1 Day

Interval: 14 days after Cycle 2 FOLFOX-6 Modified

10 Jul 2023 - 10 Jul 2023
Cycle 3 FOLFOX-6 Modified 1 Day

Scroll to the cycle to see all the medications contained within the cycle. The status of the medication is visible (green circle)

23 May 2023 - 23 May 2023 • No distance					
Cycle 1 FOLFOX-6 Modified 1 Day					
1 Tue 23 May 2023	07:30	5min	Ondansetron Tablet PO	16mg • Tabs: 2 x 8mg	PLANNED
	07:30	5min	Dexamethasone Tablet PO	8mg • Tabs: 4 x 2mg	PLANNED
	08:00	120min	Oxaliplatin in 500mL Glucose 5% • by intravenous infusion	179.42mg • (85mg/m ² BSA Dubois)	PLANNED
	08:00	120min	Calcium folinate 10 mg/mL Solution for injection in 250mL Glucose 5% • by intravenous infusion	844.32mg • (400mg/m ² BSA Dubois)	PLANNED

Reference formulas are included when a dose calculation is required, for example all medications based on body surface area in adult SACT regimens include the BSA Dubois reference formula. Reference formulas are also utilised in NCIS where dose capping is required, for example below the reference formula has been applied for vincristine 1.4mg/m² to ensure the dose never exceeds 2mg.

15min	vinCRISStine	2mg • (1.4mg /m ² BSA Dubois MAX 2mg for vinCRISStine) 1.4 mg/m ²	PHYSICIAN-VERIFIED
in 50mL NaCl 0.9% • by intravenous infusion			

The reference formula applied can be altered by choosing from the drop down list in the reference section of the edit medication screen.

Editing a physician-verified medication

☐ To be dispensed
 ☐ Urgent

Active ingredient / Product

vinCRISStine

Usual dose

1.4mg/m² BSA Dubois MAX 2mg for vinCRISStine

Calculation

1.4 mg/m² 100% = 1.4mg/m² x 1.43m² = 2mg

Dose

2mg

Volume

Active ingredient

vinCRISStine

Product

Usual dose

1.40 mg /m²

Reference

Dubois MAX 2mg for vinCRISStine 1.4 mg/m²
 BSA Dubois MAX 2.2m²
 BSA Dubois MAX 2m²
 BSA Dubois MAX 2mg for vinCRISStine 0.8mg/m²
BSA Dubois MAX 2mg for vinCRISStine 1.4 mg/m²
 BSA Dubois MAX 2mg for vinCRISStine 1.5 mg/m²

Dose: 1.4mg/m² x 100.00 % = 1.40 mg /m² x 1.43m² = 2.00 mg

Diluent: <Default>

Regimens include all supportive care that is in the NCCP SACT regimen, e.g. hypersensitivity pre-medications. Medical Oncology regimens include antiemetics as agreed by ISMO (Antiemetic Medicines for inclusion in NCIS, available on the NCCP website). Haemato-oncology regimens either include antiemetic's as agreed by IHI (NCCP Supportive Care Antiemetic Medicines for Inclusion in NCIS) or they have medication selections which allow selection of specific antiemetics on a case by case basis

Click Define on the Medication Selection

20 Apr 2023 - 04 May 2023
Cycle 1 ABVD 15 days

+
<

1
Thu 20 Apr 2023

07:30

Medication selection
High risk of emesis - Select medications required.

DEFINE

Choose the required Medication(s) and click OK. It is also possible to Skip the Medication Selection by clicking Skip.

Define medication selection

Medication selection: **High risk of emesis - Select medications required. - Version 7**

[Select all](#)

☐ Aprepitant Capsule (Caps: 1 x 80mg) PO over 5 min
☐ Aprepitant Capsule (Caps: 1 x 125mg) PO over 5 min
☐ Cyclizine Tablet (Tabs: 1 x 50mg) PO over 5 min
☐ Cyclizine Solution for injection (Division: 1 x 50mg) by intravenous injection over 5 min
☐ Dexamethasone Tablet (Tabs: 6 x 2mg) PO over 5 min
☐ Dexamethasone phosphate Solution for injection/infusion (Division: 1 x 8mg + 1 x 4mg) by intravenous injection over 5 min
☐ Fosaprepitant Powder for solution for infusion (Division: 1 x 150mg) by intravenous infusion over 30 min
☐ LORazepam Tablet (Tabs: 1 x 1mg) PO over 5 min
☐ Metoclopramide Tablet (Tabs: 1 x 10mg) PO over 5 min
☐ Metoclopramide Solution for injection (Division: 1 x 10mg) by intravenous injection over 5 min
☐ Akynzeo Capsule (Caps: 1 x 300mg/0.5mg) PO over 5 min
☐ OLANZapine Tablet (Tabs: 1 x 10mg) PO over 5 min
☒ Ondansetron Tablet (Tabs: 1 x 8mg) PO over 5 min
☐ Ondansetron Tablet (Tabs: 2 x 8mg) PO over 5 min
☐ Ondansetron Solution for injection/infusion (Division: 1 x 8mg) by intravenous injection over 5 min
☐ Palonosetron Capsule (Caps: 1 x 0.5mg) PO over 5 min
☐ Palonosetron Solution for injection (Division: 1 x 0.25mg) by intravenous injection over 5 min

Skip

OK

Cancel

The chosen Medication(s) will now appear in the cycle in the Planned Status

20 Apr 2023 - 04 May 2023
Cycle 1 ABVD 15 days

+
<

1
Thu 20 Apr 2023

07:30

5min

Ondansetron Tablet
PO

8mg • Tabs: 1 x 8mg

PLANNED

08:00

30min

DOXOrubicin
Bolus • by intravenous injection

52.77mg • (25mg/m² BSA Dubois)

PLANNED

08:30

10min

vinBLAStine
in 50mL NaCl 0.9% • by intravenous infusion

12.66mg • (6mg/m² BSA Dubois)

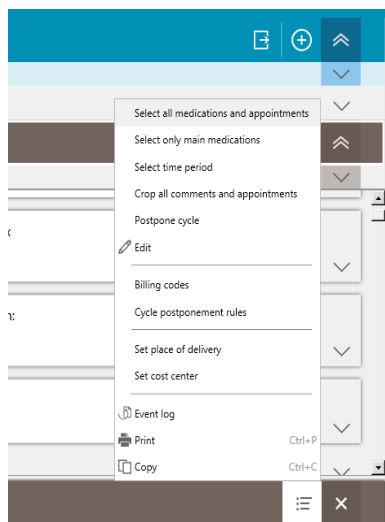
PLANNED

7. Physician Verifying Medications

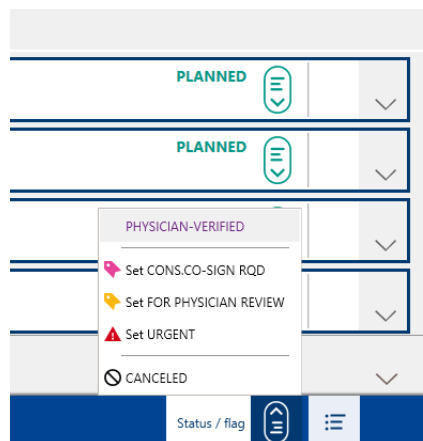
Physician verification needs to be completed for each medication. It is possible to select all medications in the cycle for verification, by either one of the two methods described below:

OPTION 1

Click on the Cycles context menu and
Click “select all medications and appointments”

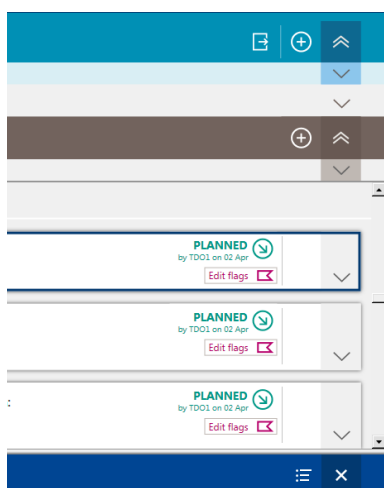


Click on “STATUS/FLAG”
Click “PHYSICIAN-VERIFIED”

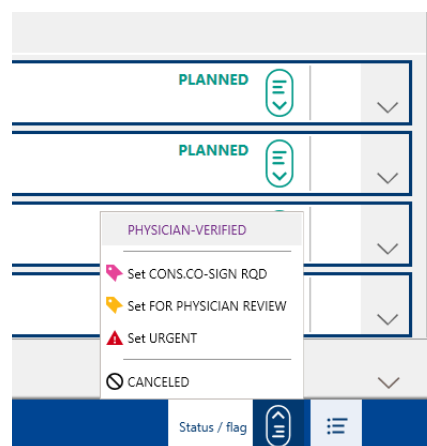


OPTION 2

Click on one medication in the cycle Press “Ctrl + A” to select all medications in the cycle



Click on “STATUS/FLAG”
Click “PHYSICIAN-VERIFIED”



It is also possible to PHYSICIAN-VERIFY each medication individually if desired. Select the medication, click the Status/Flag icon, and click PHYSICIAN-VERIFIED

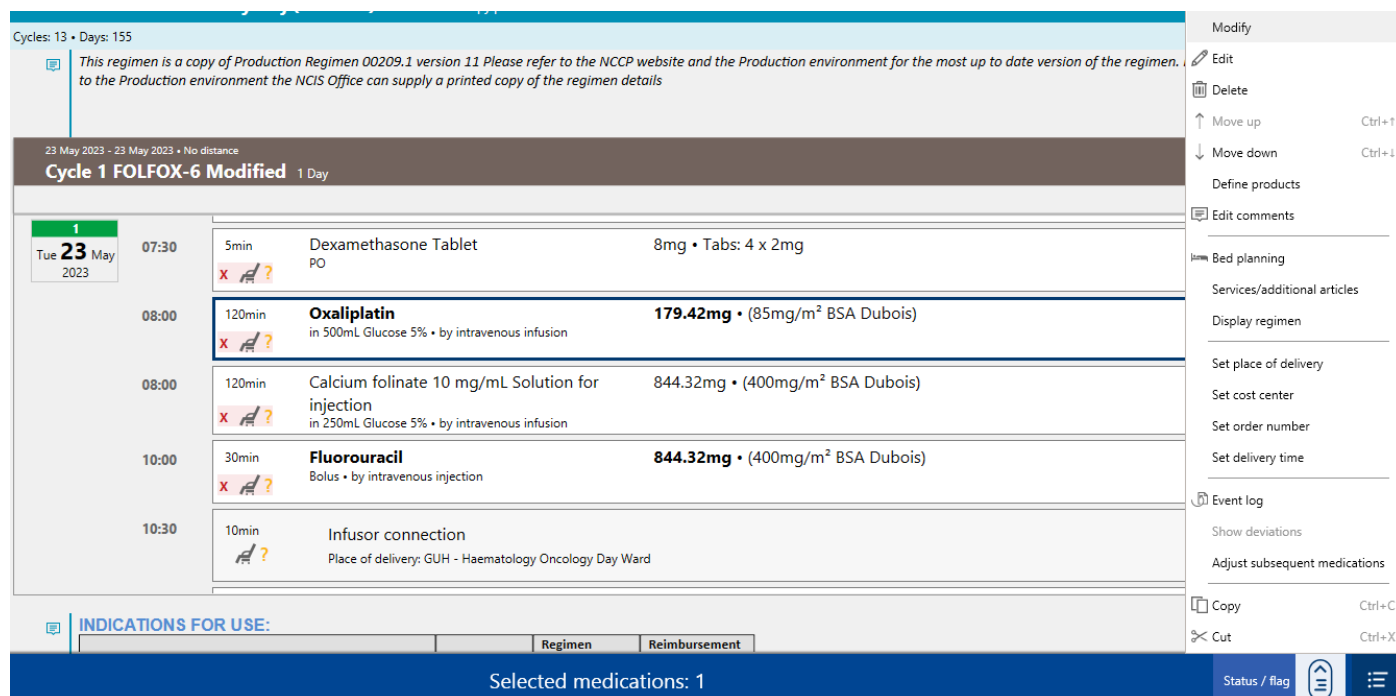


8. Modifying the Dose of a medication

It is possible to change any aspect of a medication that is planned, or physician verified. This section describes the Modify functionality which is the most efficient way to alter the dosage of a medication.

If a medication specific dose capping formula has been applied for example with vinCRISTine, DACTINomycin, oral cyclophosphamide etc the reference formula should also be manually adjusted before dose modification so that the correct BSA is used in the dose calculation

Right click on the Medication to open the context menu for that medication and click modify



Cycles: 13 • Days: 155

This regimen is a copy of Production Regimen 00209.1 version 11 Please refer to the NCCP website and the Production environment for the most up to date version of the regimen. to the Production environment the NCIS Office can supply a printed copy of the regimen details

23 May 2023 - 23 May 2023 • No distance

Cycle 1 FOLFOX-6 Modified 1 Day

Time	Duration	Medication	Dose
07:30	5min	Dexamethasone Tablet PO	8mg • Tabs: 4 x 2mg
08:00	120min	Oxaliplatin in 500mL Glucose 5% • by intravenous infusion	179.42mg • (85mg/m² BSA Dubois)
08:00	120min	Calcium folinate 10 mg/mL Solution for injection in 250mL Glucose 5% • by intravenous infusion	844.32mg • (400mg/m ² BSA Dubois)
10:00	30min	Fluorouracil Bolus • by intravenous injection	844.32mg • (400mg/m² BSA Dubois)
10:30	10min	Infusor connection Place of delivery: GUH - Haematology Oncology Day Ward	

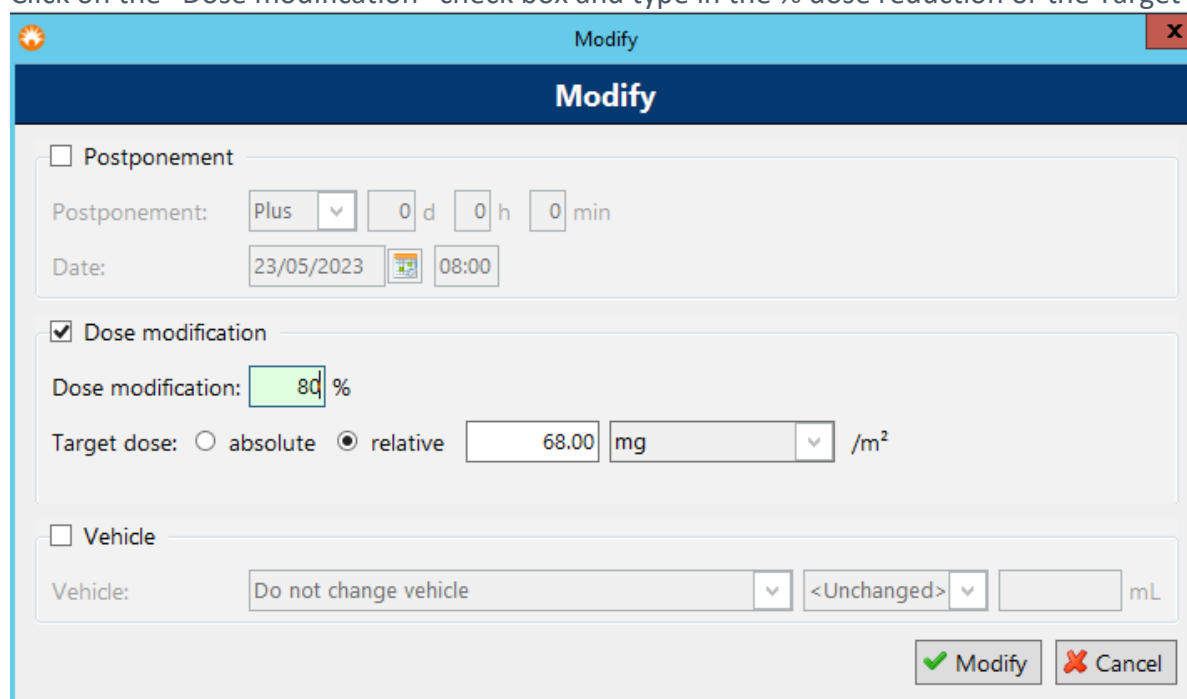
INDICATIONS FOR USE:

Regimen Reimbursement

Selected medications: 1

Status / flag

Click on the “Dose modification” check box and type in the % dose reduction or the Target Dose



Modify

☐ Postponement

Postponement: Plus 0 d 0 h 0 min

Date: 23/05/2023 08:00

☒ Dose modification

Dose modification: 80 %

Target dose: ☐ absolute ☒ relative 68.00 mg /m²

☐ Vehicle

Vehicle: Do not change vehicle <Unchanged> mL

Modify Cancel

(For Cycle Postponement see the NCIS TRAINING GUIDE—MEDICATION POSTPONEMENT. For Changing Vehicle see below)

If the Dose Modification is greater than 5% the Dosage Modification Wizard will ask if subsequent medications with the same active ingredient and same administration route should also be changed. Click the appropriate button and click OK

Dose Modification Wizard

Dose Modification Wizard

Should subsequent medications with **Oxaliplatin** also be modified to **80%** with an administration route **by intravenous infusion**?

☒ No

☐ Adjust all subsequent medications: 11 more

✓ OK

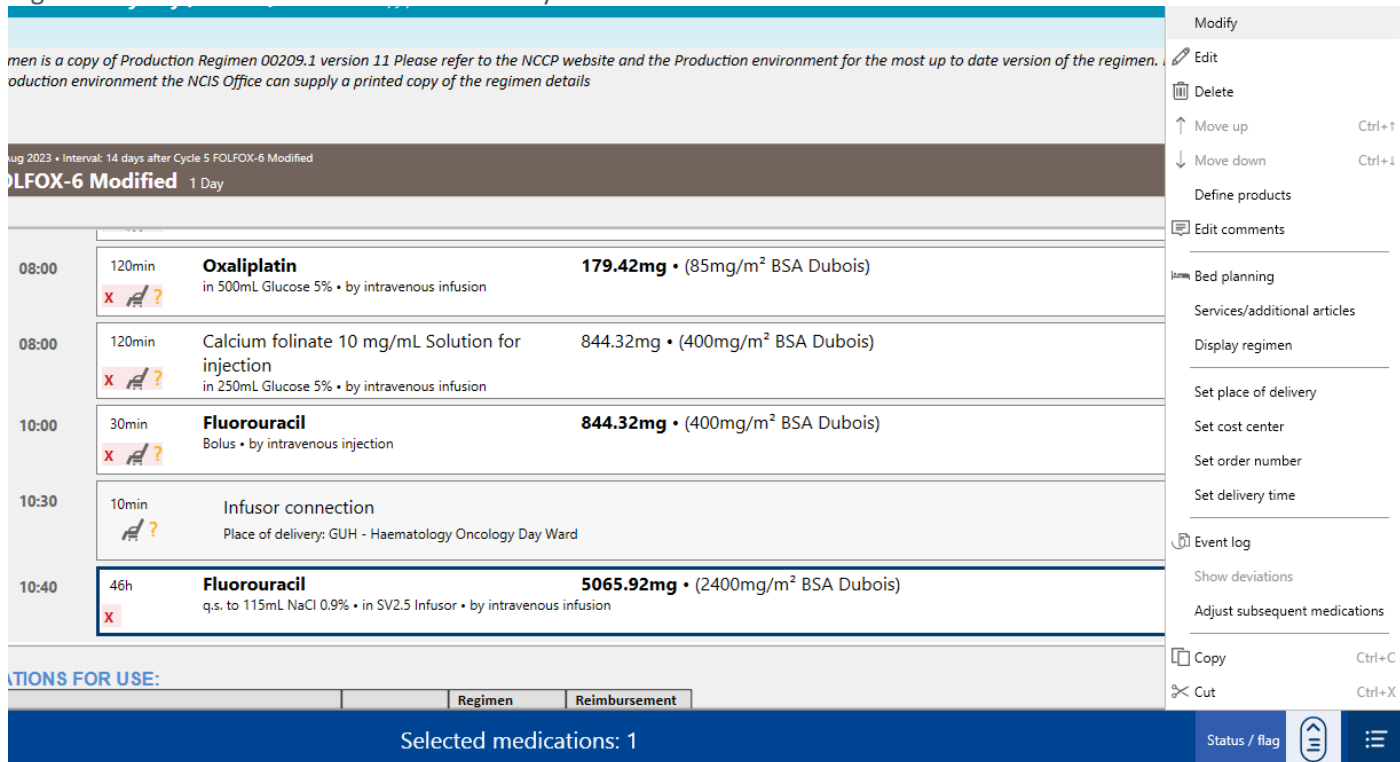
The Medication (and subsequent medication if applicable) will now be dose reduced
 (The percentage shown is compared to the original planned dose)

120min	Oxaliplatin <small>in 500mL Glucose 5% • by intravenous infusion</small>	143.53mg • 80% (68mg/m ² BSA Dubois)	PLANNED <div style="border: 1px solid #00a0e3; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> <div style="font-size: 10px; line-height: 1;">⋮</div> </div>	<div style="background-color: #f0f0f0; padding: 2px 5px; font-weight: bold;">P</div> <div style="font-size: 12px;">▼</div>
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9. Modifying the Vehicle of a medication

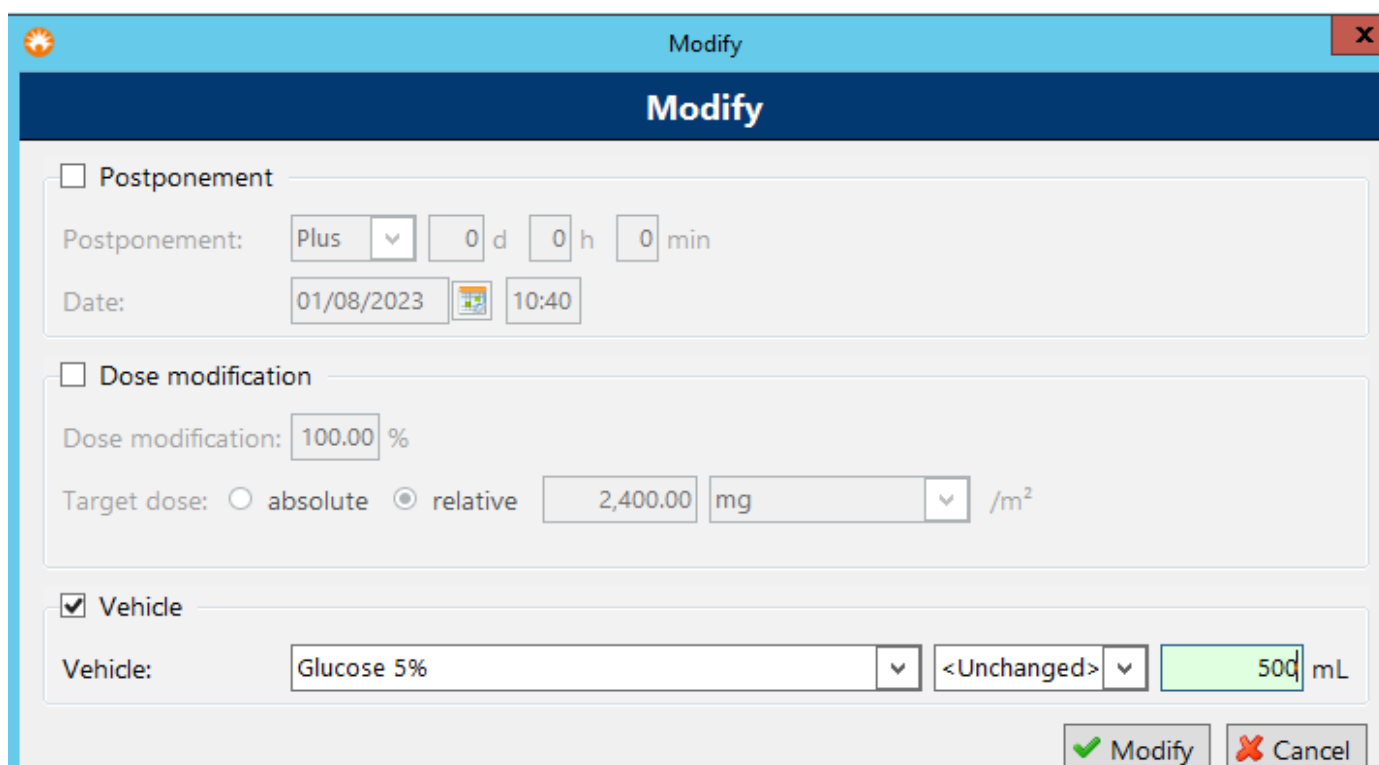
It is possible to change any aspect of a medication that is planned or physician verified. This section describes the Modify functionality which is the most efficient way to alter the vehicle of a medication. To note, it is also possible to change the vehicle during pharmacist verification (provided more than one allowable vehicle is built for the product in the drug file).

Right click on the Medication and click modify



The screenshot shows a medication management interface. At the top, there is a header bar with a blue gradient. Below it, a text box contains the following information: "men is a copy of Production Regimen 00209.1 version 11 Please refer to the NCCP website and the Production environment for the most up to date version of the regimen. Production environment the NCIS Office can supply a printed copy of the regimen details". Below this, a table lists medications. The first medication is "Oxaliplatin" with a dose of "179.42mg • (85mg/m² BSA Dubois)" and a duration of "120min". The second medication is "Calcium folinate 10 mg/mL Solution for injection" with a dose of "844.32mg • (400mg/m² BSA Dubois)" and a duration of "120min". The third medication is "Fluorouracil" with a dose of "844.32mg • (400mg/m² BSA Dubois)" and a duration of "30min". The fourth medication is "Fluorouracil" with a dose of "5065.92mg • (2400mg/m² BSA Dubois)" and a duration of "46h". A right-click context menu is open over the "Fluorouracil" medication, showing options: "Modify", "Edit", "Delete", "Move up", "Move down", "Define products", "Edit comments", "Bed planning", "Services/additional articles", "Display regimen", "Set place of delivery", "Set cost center", "Set order number", "Set delivery time", "Event log", "Show deviations", "Adjust subsequent medications", "Copy", and "Cut". The "Modify" option is highlighted at the top of the menu.


Click on the “Vehicle” check box and select the new vehicle or type the new vehicle volume



The screenshot shows the "Modify" dialog box. The title bar is blue with a "Modify" button and a close button. The main area has a dark blue header with the word "Modify" in white. Below the header, there are three sections: "Postponement", "Dose modification", and "Vehicle". The "Vehicle" section is selected with a checkmark. The "Vehicle" section contains a "Vehicle:" label, a dropdown menu showing "Glucose 5%", a "<Unchanged>" dropdown, and a text box showing "500 mL". At the bottom right, there are two buttons: "Modify" (green checkmark) and "Cancel" (red X).

(For Cycle Postponement see the NCIS GUIDE—MEDICATION POSTPONEMENT. For Modifying Dose see above)

The Medication will now have a new vehicle and/or volume

46h	Fluorouracil	5065.92mg • (2400mg/m ² BSA Dubois)	PLANNED		P	▼
X	q.s. to 500mL Glucose 5% • in SV2.5 Infusor • by intravenous infusion					

Changing Vehicle and/or Volume for multiple medications

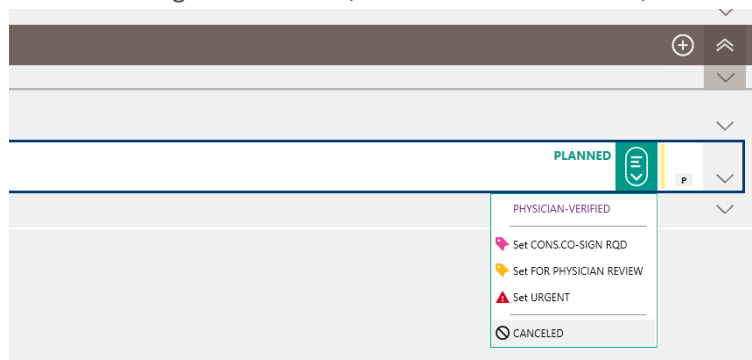
If the same medication appears more than once in a cycle it is possible to change the vehicle and/or volume at the same time by selecting multiple medications (hold down the “Ctrl” key).

Medications are highlighted blue when they are selected

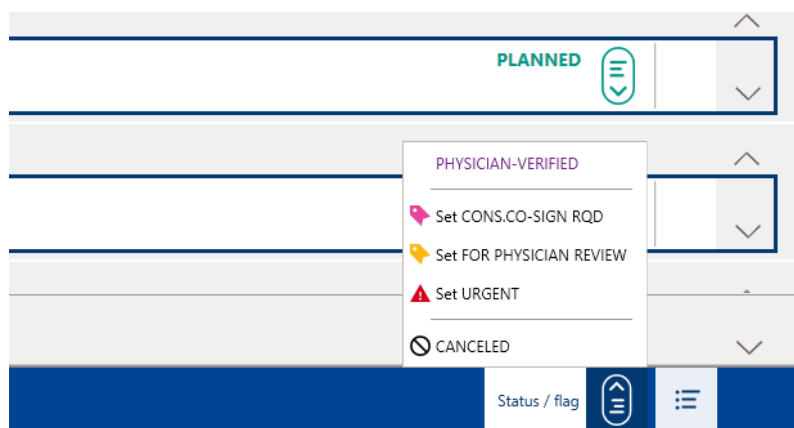
10. Cancelling a Medication

Medications cannot be deleted from a Therapy Plan; however, they can be marked as cancelled with an associated reason code.

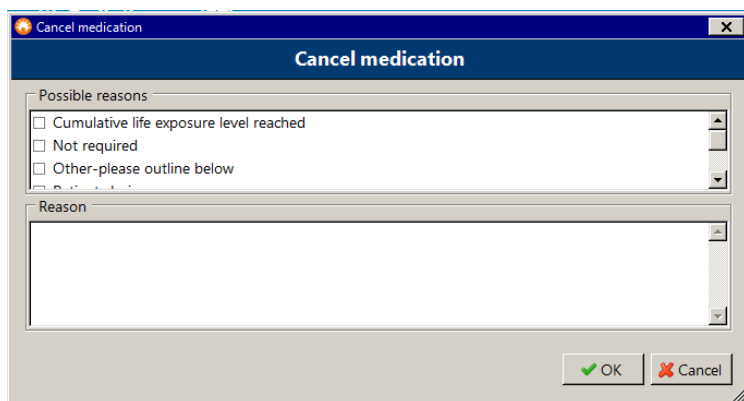
To cancel a single Medication, click on the Medication, click on the Status/Flag icon and click CANCELLED



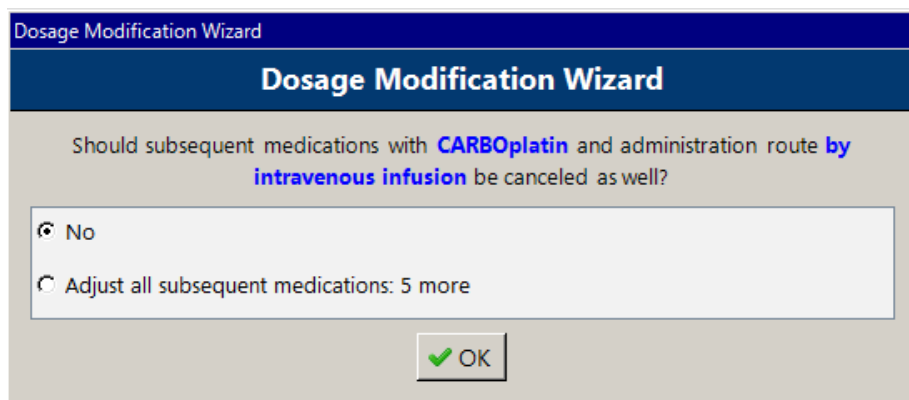
To cancel multiple Medications, select the Medications, click on Status/Flags icon in the blue banner and click CANCELLED



Enter a reason for cancelling the medication(s) either by clicking the checkbox or clicking “Other — please outline below” and free typing the reason



You will now be asked if you wish to cancel just the current medication or all future medications with the same active ingredient and route of administration



Dosage Modification Wizard

Should subsequent medications with **CARBOplatin** and administration route by **intravenous infusion** be canceled as well?

☒ No

☐ Adjust all subsequent medications: 5 more

The medication(s) chosen will now appear with a CANCELLED flag and a strike through



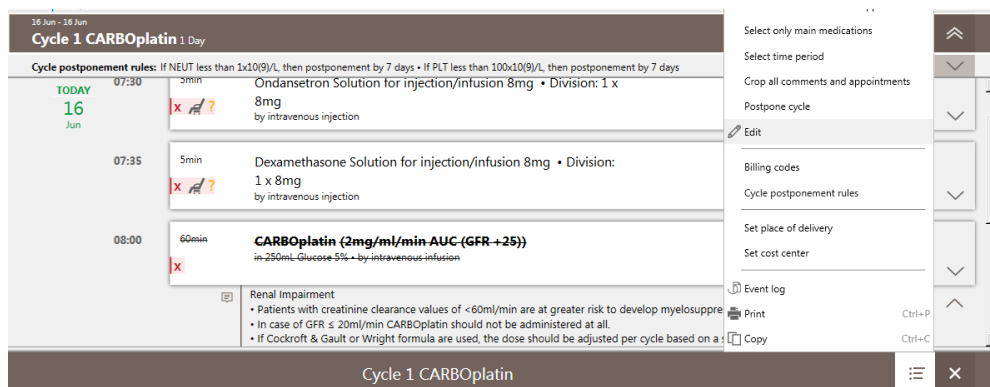
60min	CARBOplatin in 500mL Glucose 5% + by intravenous infusion	7.5mg/mL/min AUC (GFR +25)	PLANNED	<input checked="" type="button" value="CANCELLED"/>
-------	---	----------------------------	---------	---

Renal impairment

Cancelling Cycles

It is not possible to cancel an entire cycle, all the medications in the cycle should be cancelled as described above. It is possible to change the title of the cycle to indicate to other users, at a glance, that the cycle has been cancelled.

Click on the brown cycle context menu and click Edit



Cycle 1 CARBOplatin 1 Day

Cycle postponement rules: If NEUT less than 1x10⁹/L, then postponement by 7 days • If PLT less than 100x10⁹/L, then postponement by 7 days

TODAY 16 Jun	07:30	3min	Ondansetron Solution for injection/infusion 8mg • Division: 1 x 8mg by intravenous injection
	07:35	5min	Dexamethasone Solution for injection/infusion 8mg • Division: 1 x 8mg by intravenous injection
	08:00	60min	CARBOplatin (2mg/mL/min AUC (GFR +25)) in 250mL Glucose 5% + by intravenous infusion

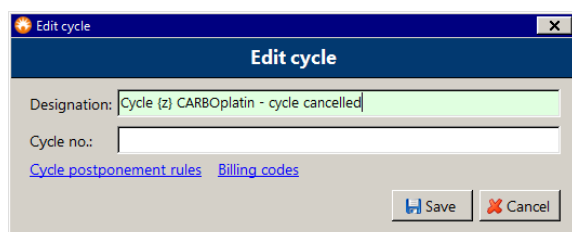
Renal Impairment
• Patients with creatinine clearance values of <60mL/min are at greater risk to develop myelosuppression
• In case of GFR ≤ 20mL/min CARBOplatin should not be administered at all
• If Cockcroft & Gault or Wright formula are used, the dose should be adjusted per cycle based on a

Context Menu:

- Select only main medications
- Select time period
- Crop all comments and appointments
- Postpone cycle
- Edit**
- Billing codes
- Cycle postponement rules
- Set place of delivery
- Set cost center
- Event log
- Print
- Copy

Cycle 1 CARBOplatin

The name of the cycle can now be changed to include cancellation information if desired

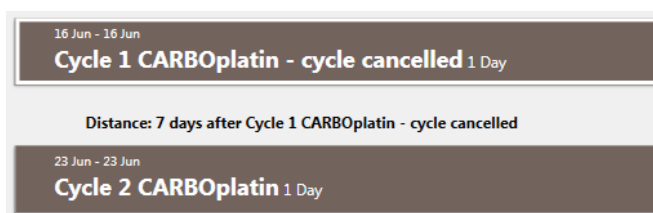


Edit cycle

Designation:

Cycle no.:

[Cycle postponement rules](#) [Billing codes](#)

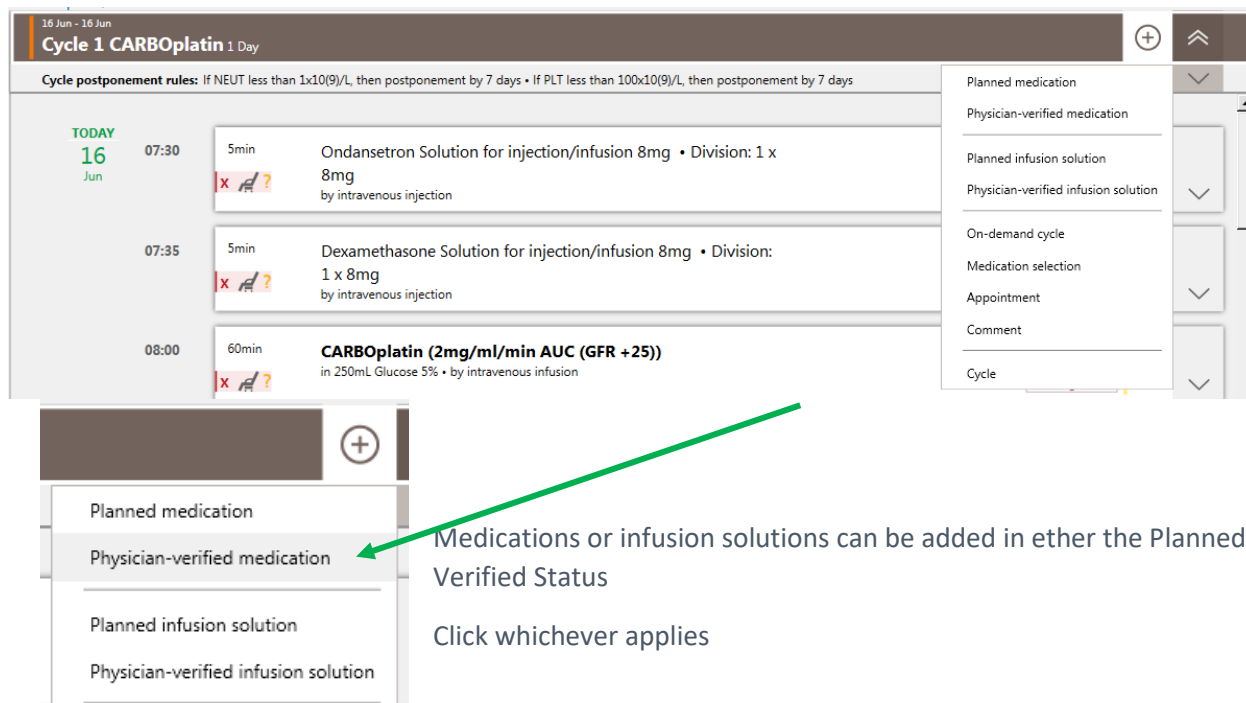


16 Jun - 16 Jun	Cycle 1 CARBOplatin - cycle cancelled 1 Day
Distance: 7 days after Cycle 1 CARBOplatin - cycle cancelled	
23 Jun - 23 Jun	Cycle 2 CARBOplatin 1 Day

11. Adding a New Medication

Users may add any medication to a cycle in a Therapy Plan, provided the medication is in the NCIS Drug File. Adding a medication as described in this section requires the user to complete all the information manually. The next section describes Medication Selections which may be more expedient for common medications.

In the cycle you wish to add a medication to click on the PLUS icon on the cycle banner



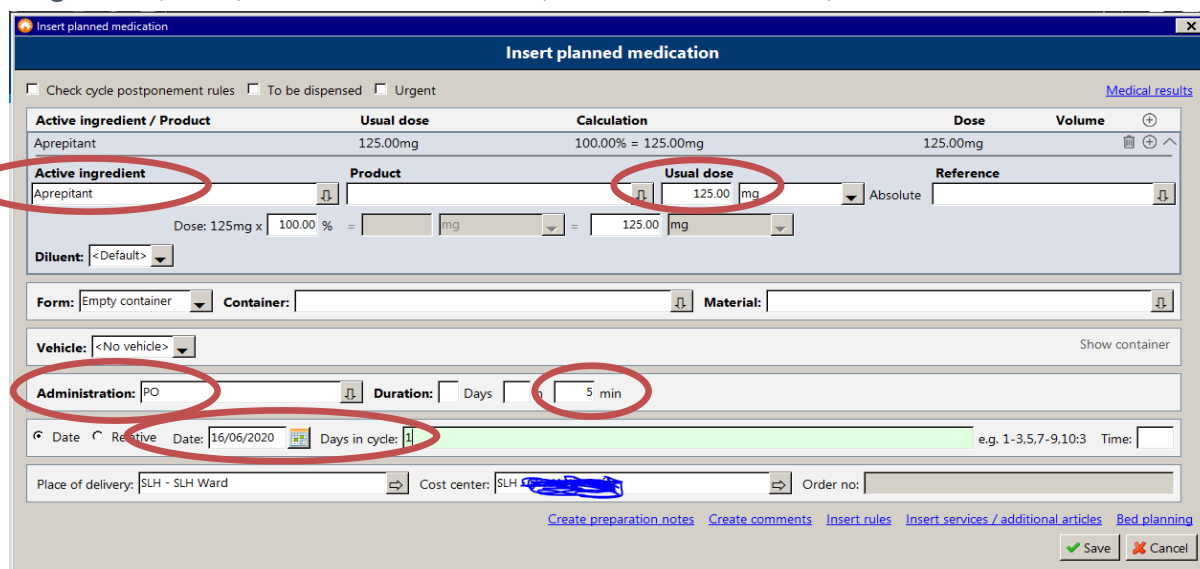
The screenshot shows the 'Cycle 1 CARBOplatin 1 Day' banner. Below the banner, a list of medications is shown for 'TODAY 16 Jun':

- 07:30: 5min Ondansetron Solution for injection/infusion 8mg • Division: 1 x 8mg by intravenous injection
- 07:35: 5min Dexamethasone Solution for injection/infusion 8mg • Division: 1 x 8mg by intravenous injection
- 08:00: 60min CARBOplatin (2mg/ml/min AUC (GFR + 25)) in 250mL Glucose 5% • by intravenous infusion

A dropdown menu is open, showing options: Planned medication, Physician-verified medication, Planned infusion solution, Physician-verified infusion solution, On-demand cycle, Medication selection, Appointment, Comment, and Cycle. A green arrow points to the 'Physician-verified medication' option.

Medications or infusion solutions can be added in either the Planned or Physician Verified Status
Click whichever applies

The Insert Medication Window appears. At a minimum the following information must be defined: Active ingredient, dose, date of administration, administration route, duration



The 'Insert planned medication' window is shown. The following fields are highlighted with red circles:

- Active ingredient / Product: Aprepitant
- Usual dose: 125.00mg
- Administration: PO
- Duration: 5 min
- Date: 16/06/2020
- Days in cycle: 1

Other fields include: Calculation (100.00% = 125.00mg), Dose (125.00mg), Volume, Diluent, Form, Container, Material, Vehicle, Place of delivery, Cost center, and Order no. Buttons for 'Save' and 'Cancel' are at the bottom right.

Click Save when complete. If all required information is not entered a warning box will appear.

- For Oral Medications the time can be entered as 5mins—this is to facilitate bed planning
- The Due date can either be entered as the date the medication is due or the day of the cycle
- Route of Administration will auto-populate if there is only one possible route

The new medication will now be entered in the cycle

Renal Impairment
• Patients with creatinine clearance values of < 60ml/min are at greater risk to develop myelosuppression.

5min Aprepitant 125mg
PO

PLANNED

It is not possible to add a medication to multiple cycles automatically—however it is possible to copy and paste a medication into cycles.

Click on the medication you wish to copy, open its context menu and click copy

5min Aprepitant 125mg
PO

- Set place of delivery
- Set cost center
- Set delivery time
- Event log
- Adjust subsequent medications
- Copy (Ctrl+C)

Selected medications: 1

It is then possible to move through cycles by clicking the large arrows at the top of the screen

NT MARY • d.o.b. 15 Aug 1976 43.8 Years • Patient no.: S12368 • GUH - GUH Ward

Today Therapies Compact Complete Patient data Medical results Diagnoses Cumul. doses

16 Jun - 21 Jul

CARBoplatin (AUC 2) Weekly with Radiotherapy (RT) Version 2 • Therapy plan number: 572

Once in the desired cycle click the Brown Cycle context menu and select Paste Copied Medicine

23 Jun - 23 Jun • Distance: 7 days after Cycle 1 CARBoplatin

Cycle 2 CARBoplatin 1 Day

Cycle postponement rules: IF NEUT less than 1x10(9)/L, then postponement by 7 days • If PLT less than 100x10(9)/L, then postponement by 7 days

Tue 23 Jun 07:35 5min Dexamethasone Solution for injection/infusion 8mg • Division: 1 x 8mg by intravenous injection

08:00 60min CARBoplatin (2mg/ml/min AUC (GFR + 25)) in 250mL Glucose 5% • by intravenous infusion

Renal Impairment
• Patients with creatinine clearance values of < 60ml/min are at greater risk to develop myelosuppression.

- Select time period
- Crop all comments and appointments
- Postpone cycle
- Edit
- Billing codes
- Cycle postponement rules
- Set place of delivery
- Set cost center
- Event log
- Print (Ctrl+P)
- Copy (Ctrl+C)
- Paste copied medication (Ctrl+V)

Cycle 2 CARBoplatin

Enter the day of the cycle or date for the copied medication and click save

Administration: PO Duration: 0 Days 0 h 5 min

Date Relative Date: 23/06/2020 Days in cycle: 1 e.g. 1-3,5,7-9,10,3 Time:

Place of delivery: SLH - SLH Ward Cost center: SLH - Dr. Austin Duffy Order no:

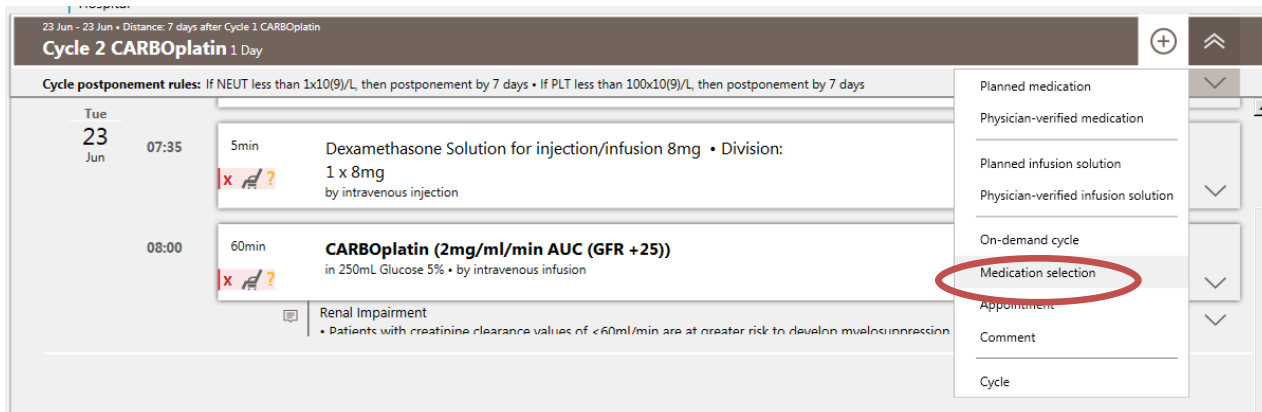
[Create preparation notes](#) [Create comments](#) [Insert rules](#) [Insert services / additional articles](#) [Bed planning](#)

Save Cancel

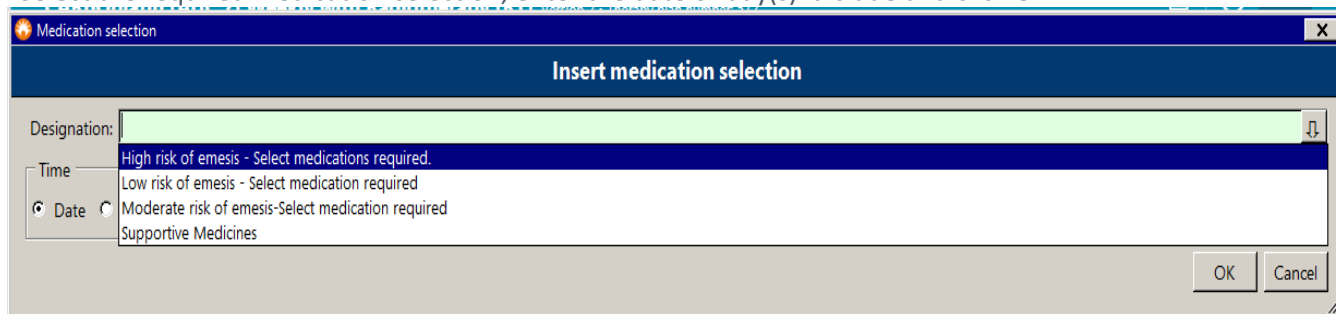
12. Adding a New Medication from a Medication Selection

Medication selections contain medications with doses and administration details pre-populated. They can be added to any cycle in a Therapy Plan.

In the cycle you wish to add a medication selection to click on the PLUS icon on the cycle banner and click Medication selection



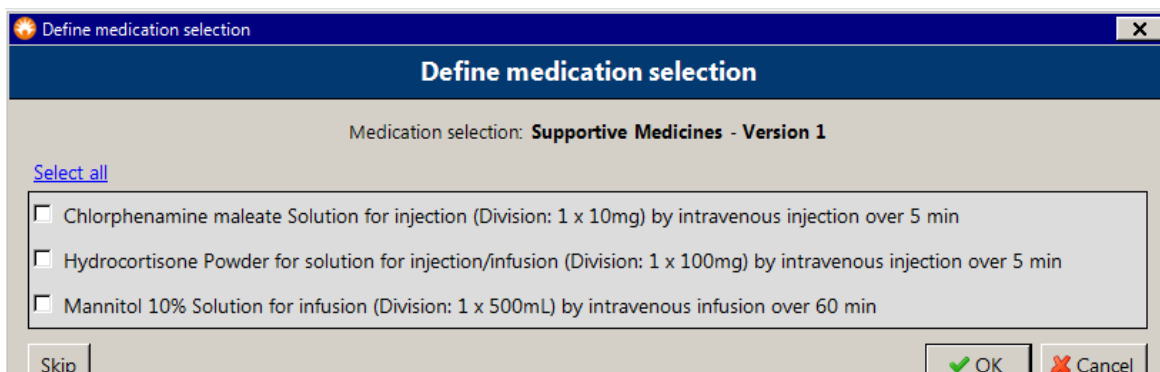
Select the required medication selection, enter the date or day(s) it is due and click Ok



Click Define on the Medication Selection



Choose the medication or medications required and click OK



The therapy plan now includes the chosen medications

23 Jun - 23 Jun • Distance: 7 days after Cycle 1 CARBOplatin

Cycle 2 CARBOplatin 1 Day

Cycle postponement rules: If NEUT less than 1x10(9)/L, then postponement by 7 days • If PLT less than 100x10(9)/L, then postponement by 7 days

Tue
23
Jun

High risk of emesis - Select medications required.

5min
X ? Chlorphenamine Solution for injection 10mg • Division: 1 x 10mg
by intravenous injection

5min
X ? Hydrocortisone Powder for solution for injection/infusion 100mg • Division: 1 x 100mg
by intravenous injection

If the medications are required in future cycles, they can be copied and pasted as described above

13. Copying and Pasting a Cycle

It is possible to copy and paste an entire cycle. This may be useful when a change from the standard regimen is required for a patient. Rather than changing each cycle individually it is possible to schedule one cycle, make the changes then copy and paste the cycle.

This functionality is also useful for adding additional cycles to the patient's Therapy Plan

In the cycle you wish to copy click on the brown cycle context menu and click Copy

12 Jul 2023 - 13 Jul 2023 • Interval: 14 days after Cycle 11 FOLFOX-4

Cycle 12 FOLFOX-4 2 Days

Cycle postponement rules: If NEUT less than 1.5x10(9)/L, then postponement by 7 days • If PLT less than 75x10(9)/L, then postponement by 7 days

1
Wed 12 Jul 2023

07:30 5min Ondansetron Solution for injection/infusion 8mg • Division: 1 x 8mg
by intravenous injection

07:35 5min Dexamethasone phosphate Solution for injection/infusion 8mg • Division: 1 x 8mg
by intravenous injection

08:00 120min Oxaliplatin 176.47mg • (85mg/m² BSA Dubois)
in 500mL Glucose 5% • by intravenous infusion
Administration
Oxaliplatin is incompatible with 0.9% NaCl

08:00 120min Calcium folinate Solution for injection 415.23mg • (200mg/m² BSA Dubois)
by intravenous infusion
Administration
Folinic Acid (Calcium Leucovorin/calcium folinate) must be administered prior to fluorouracil. It enhances the effects of fluorouracil by increasing fluorouracil binding to the target enzyme thymidylate synthetase.

10:00 30min Fluorouracil 830.46mg • (400mg/m² BSA Dubois)
Bolus • by intravenous injection
Administration
Flush line with glucose 5% before administering 5-FU
Acute neurotoxicity is common with oxaliplatin and can be precipitated on exposure to the cold therefore in this regimen patients should NOT suck on ice chips during the bolus injection of fluorouracil.

Renal impairment
Consider dose reduction in severe renal impairment only.
Hepatic impairment
If bilirubin <85 micromol/L, give 100% of dose.
If AST <180 U/L, give 100% of dose.

SUPPORTIVE CARE:
Take home prescriptions are to be handwritten as an interim measure until system development is complete.

Cycle 12 FOLFOX-4

PLANNED

Select all medications and appointments
Select only main medications
Select time period
Crop all comments and appointments
Postpone cycle
Compare cycle
Edit
Delete
Billing codes
Cycle postponement rules
Display regimen
Set place of delivery
Set cost center
Event log
Print
Copy
Paste copied cycle

Click back into the cycle context window and click Paste copied cycle

12 Jul 2023 - 13 Jul 2023 • Interval: 14 days after Cycle 11 FOLFOX-4
Cycle 12 FOLFOX-4 2 Days

Cycle postponement rules If NEUT less than 1.5x10⁹/L, then postponement by 7 days • If PLT less than 75x10⁹/L, then postponement by 7 days

Time	Duration	Medication	Dose	Status
07:30	5min	Ondansetron Solution for injection/infusion by intravenous injection	8mg • Division: 1 x 8mg	PLANNED
07:35	5min	Dexamethasone phosphate Solution for injection/infusion by intravenous injection	8mg • Division: 1 x 8mg	PLANNED
08:00	120min	Oxaliplatin in 500mL Glucose 5% • by intravenous infusion	176.47mg • (85mg/m ² BSA Dubois)	PLANNED
08:00	120min	Calcium folinate Solution for injection by intravenous infusion	415.23mg • (200mg/m ² BSA Dubois)	PLANNED
10:00	30min	Fluorouracil Bolus • by intravenous injection	830.46mg • (400mg/m ² BSA Dubois)	PLANNED

SUPPORTIVE CARE:
Take home prescriptions are to be handwritten as an interim measure until system development is complete.

Insert cycle anew as copy window:

How should the cycle be inserted?

Insert cycle anew as copy

New cycle
Designation: Cycle (2) FOLFOX-4
Day 1 = 02/08/2023 = 21 days interval = day 176 of the therapy plan

OK Cancel

The Insert cycle anew as copy window appears. Enter the date you wish the new cycle to appear. It is also possible to enter the interval between the copied and the new cycle rather than the date.

The new cycle will now be available in the therapy plan. Further cycles can be pasted by clicking on the brown cycle context menu.

02 Aug 2023 - 03 Aug 2023 • Interval: 21 days after Cycle 12 FOLFOX-4
Cycle 13 FOLFOX-4 2 Days

Cycle postponement rules If NEUT less than 1.5x10⁹/L, then postponement by 7 days • If PLT less than 75x10⁹/L, then postponement by 7 days

Time	Duration	Medication	Dose	Status
07:30	5min	Ondansetron Solution for injection/infusion by intravenous injection	8mg • Division: 1 x 8mg	PLANNED
07:35	5min	Dexamethasone phosphate Solution for injection/infusion by intravenous injection	8mg • Division: 1 x 8mg	PLANNED
08:00	120min	Oxaliplatin in 500mL Glucose 5% • by intravenous infusion	176.47mg • (85mg/m ² BSA Dubois)	PLANNED
08:00	120min	Calcium folinate Solution for injection by intravenous infusion	415.23mg • (200mg/m ² BSA Dubois)	PLANNED
10:00	30min	Fluorouracil Bolus • by intravenous injection	830.46mg • (400mg/m ² BSA Dubois)	PLANNED

SUPPORTIVE CARE:
Take home prescriptions are to be handwritten as an interim measure until system development is complete.

Cycle 13 FOLFOX-4

14. Creating a Therapy Plan in NCIS.Med without a Regimen (from scratch)

It is possible to create a therapy plan from scratch without using a regimen. Any medication available in the NCIS drug file can then be used for the patient, as and when required.

After clicking NCIS.Med in the patient's Therapy Form (see section 5) the NCIS.Med application will launch in the patient's record and the Add Therapy Plan window will appear.

To create a regimen from scratch, untick the box 'Create therapy plan from regimen'

It is now possible to:

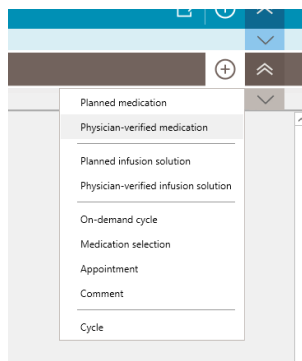
- Choose whether to start the regimen on "Day 1" or "Day 0" (default = day 1)
- Complete the Place of Delivery (ward or day centre where treatment will be given) and Cost Centre (Primary Consultant)

It is strongly advised to complete the Place of Delivery and Cost Centre at this point otherwise they must be completed cycle by cycle.

After clicking Save the insert cycle window appears

- Add a start date for the therapy
- It is possible to use a cycle from an existing regimen by clicking the "from regimen" button, or creating a cycle entirely from scratch
- Complete the Designation field. To ensure that cycle numbers appear in the cycle banner, add in the name of the cycle after 'Cycle {z}' (as below) the '{rv}' text can be removed
- The cycle number field is not required

Click Save and the patient's Therapy will be planned. Note the therapy plan cannot be named but is given a number. Click the PLUS icon on the brown cycle banner to add medications to the cycle.



Medications and infusion solutions can then be added to the cycle as Planned or Physician Verified (depending on your permissions)

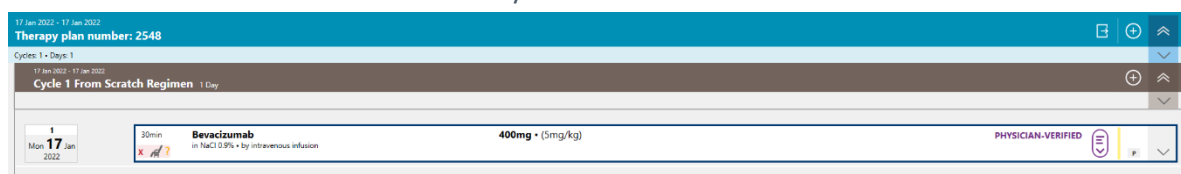
It is also possible to add Medication Selections and Appointments at this point

When clicking on add medication the "Insert a Medication" window opens. At a minimum the following information must be defined Active ingredient, dose, date of administration, administration route, duration

The screenshot shows the 'Insert a Medication Verified By Physician' window. Red circles highlight the following fields: 'Active ingredient / Product' (containing Bevacizumab), 'Usual dose' (5mg/kg Weight), 'Calculation' (100% = 5mg/kg x 80kg = 400mg), 'Dose' (5.00 mg), 'Reference' (Weight), 'Administration' (by intravenous infusion), and 'Duration' (Days 1-3, 5, 7-9, 10-3).

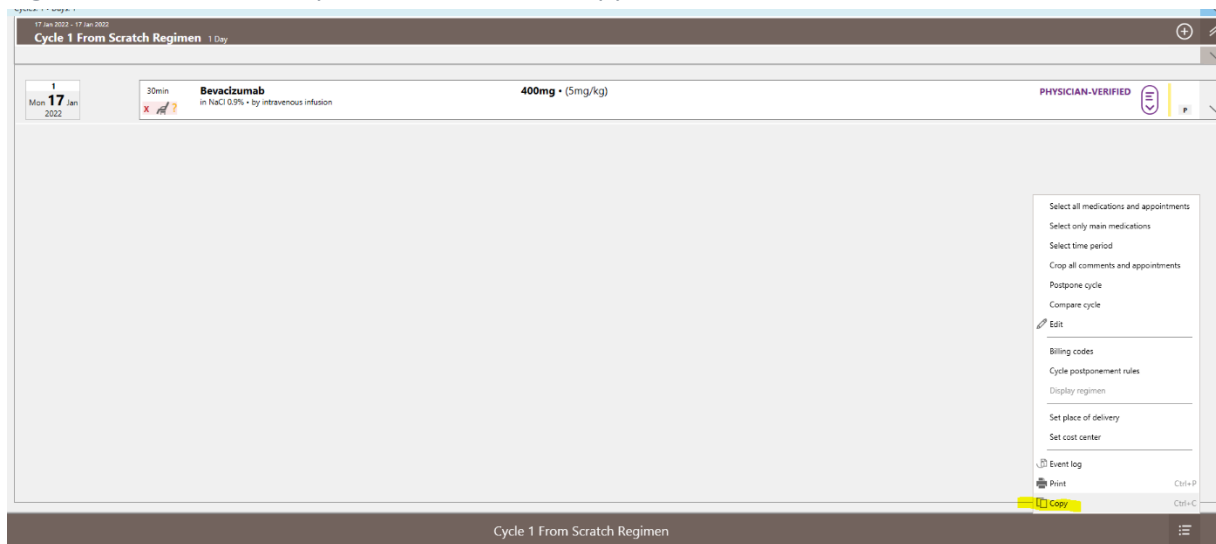
Click Save when complete. If not, all required information is entered a warning box will appear
For Oral Medications the time can be entered as 5mins—this is to facilitate bed planning
The Due date can either be entered as the date the medication is due or the day of the cycle
Route of Administration will auto-populate if there is only one possible route

The new medication is now visible in the cycle



It is not possible to insert repeating cycles into a new therapy plan, however it is possible to copy and paste existing cycles.

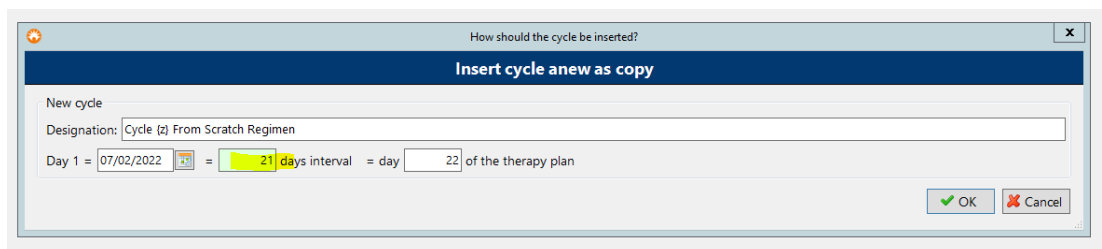
Right click on the brown cycle banner and click copy



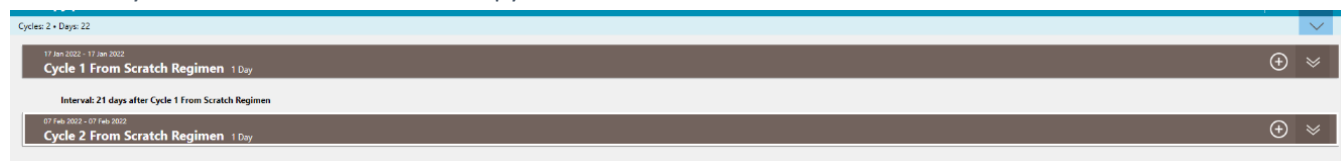
Close the cycle by clicking the brown arrows on the cycle banner, right click and choose “Paste copied cycle”



The insert cycle anew as copy window appears. Select the date, therapy plan day, or interval to the cycle and click OK



The new cycle is now visible in the Therapy Plan



To add additional cycles, complete the same steps as above but right click on the last cycle when clicking paste

