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### **ANNEX 1: Structured observation checklist for Prescriptions**

	Circle the appropriate rating
I. PRESCRIPTION FORMAT	Comments
Prescription exists in a written form, on a pre-formatted, printed prescription form or on prescription software	C PC NC NA
No abbreviations	C PC NC NA
II. PRESCRIBER IDENTIFICATION	Comments
Prescriber's family name and given names	C PC NC NA
Prescriber's telephone number	C PC NC NA
Date of the prescription and prescriber's signature	C PC NC NA
III. PATIENT INFORMATION	Comments
Family name, given names, sex, identification number	C PC NC NA
Date of birth (day/month/year)	C PC NC NA
Inpatient/outpatient department	C PC NC NA
Size and weight, body surface	C PC NC NA
Diagnostic or diagnosis	C PC NC NA
Relevant clinical parameters (renal or hepatic insufficiency)	C PC NC NA
IV. PROTOCOL	Comments
Protocol name (identification)	C PC NC NA
Premedication and adjuvant treatments	C PC NC NA
Chemotherapy drug(s) prescribed using INN	C PC NC NA
Standard dosage and patient-adapted dosage	C PC NC NA
Type and volume of solvent	C PC NC NA
Pharmaceutical form and route of administration	C PC NC NA
Cycle number and day	C PC NC NA
Date and time of administration	C PC NC NA
Duration and/or speed of administration	C PC NC NA
Chronology of administration if several chemotherapy drugs	C PC NC NA

Rating

Chronology of administration if several chemotherapy drugsCPCNCNAC = Compliant; PC = Partially Compliant; NC = Non-Compliant; NA = Not Applicable

#### **References:**

Quality Standards for the oncology pharmacy Service (Quapos) 6, European Society of Oncology Practice, 2018

Standards of Practice, International Society of Oncology Pharmacy Practitioners

2016 Updated American Society of Oncology/Oncology Nursing Society Chemotherapy Administration Standards, including Standards for Pediatric Oncology

### **ANNEX 2: Structured observation checklists for Preparation**

- A. Observation checklist for preparation without a biosafety cabinet or a cleanroom.
- B. Observation checklist for preparation under a biosafety cabinet but without a cleanroom.
- C. Observation checklist for preparation under a biosafety cabinet and inside a cleanroom.

## A. Observation checklist for preparation without a BSC or a cleanroom Rating Circle the appropriate rating

	Circle the appropriate rating								
I. RECEIPT AND TRACEABILITY OF MATERIALS					Comments				
Preparation of compounding worksheet (calculation of the volume of the anticancer drug to be drawn from the vial)	с	PC	NC	NA					
Preparation of the chemotherapy formulation's label (identification of the patient, the product, the dosage, the route of administration, storage conditions, and time and date of expiry)	с	PC	NC	NA					
Collection of equipment and ingredients for compounding based on the compounding protocol	С	PC	NC	NA					
Documentation of product batch numbers and expiry dates on the compounding worksheet	С	PC	NC	NA					
Double checking of the equipment and ingredients for compounding: verification of the drug name, dosage, quantity, type of solvent, equipment used, cleanliness, product batch n° and expiry dates, exactitude of the worksheets and the labels prepared	с	PC	NC	NA					
II. HYGIENE AND PPE					Comments				
Operator wearing hospital uniform (not private clothes)	С	PC	NC	NA					
Operator not wearing make-up or false nails	С	PC	NC	NA					
Operator wearing no jewelry	С	PC	NC	NA					
Operator washed hands hygienically (using soap and water as per WHO guidelines)	С	PC	NC	NA					
Operator dried hands using single-use paper towels	С	PC	NC	NA					
Donning of the following PPE	С	PC	NC	NA					
□ hair cap									
□ N95 or FFP2 mask									
□ laboratory coat/coveralls									
□ hospital clogs and/or overshoes									
□ protection goggles									
Operator disinfected hands with hydro-alcoholic solution	С	PC	NC	NA					
Operator put on two pairs of gloves	С	PC	NC	NA					
III: PREPARATION ROOM					Comments				
Room cleanliness (dust, waste, insects)	С	PC	NC	NA					
No open windows or doors	С	PC	NC	NA					
No concurrent activity occurring in the same room	С	PC	NC	NA					
IV. WORKBENCH SURFACE PREPARATION	<u>.</u>				Comments				
No materials or equipment unnecessary to the drug preparation process are present	с	PC	NC	NA					
Workbench surface decontaminated using ethanol 70% and then left to dry	с	PC	NC	NA					
Presence of a waste bin	С	PC	NC	NA					
Workbench surface is clean and tidy	с	PC	NC	NA					
Only one drug at a time is in preparation on the workbench surface	с	PC	NC	NA					
Preparation equipment and materials are properly laid out (following the correct preparation process)	с	PC	NC	NA					
V. HANDLING TECHNIQUES					Comments				
Operator disinfects the vial septum and dries it if necessary (with sterile swabs)	с	PC	NC	NA					

The operator does not touch the different equipment tips (syringes, needles)	с	PC	NC	NA	
Air pressure levels between the vials and the work area are correctly balanced (no pressure spikes, or air intake)	С	PC	NC	NA	
Operator uses swabs when withdrawing needles from vials	С	PC	NC	NA	
Operator properly recaps needles	С	PC	NC	NA	
In-process monitoring procedure for volumes withdrawn from vials and in syringes (double-checking, gravimetry or otherwise)	С	PC	NC	NA	
Strong management of supplies and production materials used (immediately thrown into waste bin or put far enough out of reach so as not to impede the order of drug preparation)	с	PC	NC	NA	
VI. END OF COMPOUNDING					Comments
The chemotherapy has been correctly labeled (identification of the patient, product, dosage, route of administration, conservation, date of administration, expiry time and date)	с	PC	NC	NA	
The compounding process has been documented on the compounding worksheet	С	PC	NC	NA	
Workbench cleanliness (elimination of waste products, spraying and cleaning with ethanol 70%)	С	PC	NC	NA	
Appropriate management of left-over, unused drugs (labeling, expiry date in < 24 h, storage and conservation, sachets)	с	PC	NC	NA	
VII. REMOVING PPE					Comments
Operator removed PPE before leaving the drug preparation room area	С	PC	NC	NA	
VIII. RECONCILIATION before dispensing					Comments
There is a process for verifying that the chemotherapy formulation, the prescription and the compounding protocol match (verification of the compounding worksheet and the label)	с	PC	NC	NA	
There is a visual inspection of the drug's container, its intactness and seals (also verify the type of tubing—with or without a filter)	С	PC	NC	NA	
Visual inspection of the contents (color, clearness, lack of visible particles)	с	PC	NC	NA	
Documentation of the reconciliation process on the compounding worksheet	С	PC	NC	NA	

# B. Observation checklist for preparation under a biosafety cabinet but without a cleanroom Rating

Intersection of the compounding worksheet (calculation of the values of the anticancer drug to be drawn from the vial)         C PC         Comments           Preparation of the chernotheay for morthe oraisent, the product of the chernotheay for administration, storage and compounding worksheet (calculation, storage and compounding worksheet)         C         PC         NC         NA           Collection of equipment and ingredients for compounding brotecol         C         PC         NC         NA           Product batch numbers and expiry dates are traceable on the compounding worksheet         C         PC         NC         NA           Double checking of the equipment and ingredients for compounding worksheet         C         PC         NC         NA           Double checking of the equipment and ingredients for compounding worksheet         C         PC         NC         NA           Double checking of the equipment and ingredients for compounding worksheet         C         PC         NC         NA           Double checking of the equipment and ingredients for compounding worksheet         C         PC         NC         NA           Double checking of the equipment and ingredients for compounding product         C         PC         NC         NA           Operator wearing hospital uniform (not private clathes)         C         PC         NC         NA				Circle	the	
Preparation of a compounding worksheet (calculation of the value)       C       PC       NC       NA         Preparation of the chemothrapy formulation's label (time and date of expiry (> 2 A h), identification of the patient, the product, of the route of administration, storage and conservation)       C       PC       NC       NA         Collection of equipment and ingredients for compounding based on the compounding protocol       C       PC       NC       NA         Collection of equipment and ingredients for compounding worksheet       C       PC       NC       NA         Conservation)       C       PC       NC       NA         Conservation of the drug name, dosage, quantity, type of solvent, cleaniness, product batch helps is prepared       C       PC       NC       NA         Operator wearing hospital uniform (not private clothes)       C       PC       NC       NA         Operator wearing nake-up or false nails       C       PC       NC       NA         Operator wearing nake-up or false nails       C       PC       NC       NA         Operator wearing nake-up or false nails       C       PC       NC       NA         Operator wearing nake-up or false nails       C       PC       NC       NA         Operator wearing nake-up or false nails       C       PC       NC       N			ŭ			
volume of the anticancer drug to be drawn from the vial) Proparation of the chernotherapy formulation's label (time and) C Production of equipment and ingredients for compounding C Product batch numbers and expiry dates are traceable on the compounding vorksheet Double checking of the equipment and ingredients for compounding vorksheet Double checking of the equipment and ingredients for compounding vorksheet Double checking of the equipment and ingredients for compounding vorksheet Double checking of the equipment and ingredients for compounding vorksheet Double checking of the equipment and ingredients for compounding vorksheet Double checking of the equipment and ingredients for compounding vorksheet Double checking of the upper traceable on the compounding vorksheet Double checking of the upper traceable on the compounding vorksheet Double checking of the upper traceable on the compounding vorksheet Double checking of the upper traceable on the compounding vorksheet Double checking of the upper traceable on the compounding vorksheet Double checking of the upper traceable on the compounding vork date and ingredients for compounding vork date and ingredients for C Por NC NA Doperator washing nake-up or false nails C PC C PC NC NA Doperator washing nake-up or false nails C PC C PC NC NA Doperator washing nake-up or false nails C PC C PC NC NA Doperator washing nake-up or false nails C PC C PC NC NA Doperator washing and vorvershoes Disinfection of hands using single-use paper towels Disinfection of hands using an hydro-alcoholic solution C Pret NC NA Doperator washing and vorvershoes Disinfection of hands using an hydro-alcoholic solution C PC C PC NC NA Doperator washing the upper towels C PC C PC NC NA Doperator washing and vastes, insects Disinfection of hands using an hydro-alcoholic solution C PC C PC NC NA Doperator washing and globes C PC NC NA Doperator washing C PC NC NA Doperator wa	I. RECEIPT AND TRACEABILITY OF MATERIALS	-				Comments
date of expiry (> 24 h.), identification of the patient, the product, identification of equipment and ingredients for compounding protocol       C       PC       NC       NA         Collection of equipment and ingredients for compounding based on the compounding protocol       C       PC       NC       NA         Product batch numbers and expiry dates are traceable on the compounding vorksheet       C       PC       NC       NA         Double checking of the equipment and ingredients for compounding hyperband expiry dates, exactitude of the worksheets and the labels prepared       C       PC       NC       NA         II. HYGIENE AND PPE       PC       C       PC       NC       NA         Operator wearing nospital uniform (not private clothes)       C       PC       NC       NA         Operator wearing no isewitry       C       PC       NC       NA         Operator wearing no isewitry       C       PC       NC       NA         Operator wearing no isewitry       C       PC       NC       NA         Operator died hands using single-use paper towels       C       PC       NC       NA         Operator put on first pair of glows       C       PC       NC       NA         Disinfection of hands using an hydro-alcoholic solution       C       PC       NC       NA <td></td> <td>с</td> <td>PC</td> <td>NC</td> <td>NA</td> <td></td>		с	PC	NC	NA	
based on the compounding protocol Product batch numbers and expiny dates are traceable on the C Product batch numbers and expiny dates are traceable on the C Product batch numbers and expiny dates are traceable on the C Product batch numbers and expiny dates are traceable on the C Product batch numbers and expinent used, cleanliness, product batch n' and expiny dates, exactitude of the worksheets and the labels prepared Product batch n' C PC NC NA C PC NC NA C Product batch n' C PC	date of expiry (> 24 h), identification of the patient, the product, the dosage, the route of administration, storage and	с	PC	NC	NA	
compounding worksheet       C       PC       NC       NA         compounding verification of the drug name, dosage, quantity, type of solvent, equipment used, cleanliness, product batch n° and expiry dates, exactitude of the worksheets and the tabels       C       PC       NC       NA         IL HYGIENE AND PPE       PC       Comments         Operator wearing hospital uniform (not private clothes)       C       PC       NC       NA         Operator wearing no jewelry       C       PC       NC       NA         Operator washed hands hygienically (using soap and water as per WHO guidelines)       C       PC       NC       NA         Operator field hands using single-use paper towels       C       PC       NC       NA         I hair cap		с	PC	NC	NA	
compounding: verification of the drug name, dosage, quantity, type of solvent, equipment used, cleanines, product bath n' and expiry dates, exactitude of the worksheets and the labels prepared       PC       NC       NA         Deprator wearing hospital uniform (not private clothes)       C       PC       NC       NA         Operator wearing nospital uniform (not private clothes)       C       PC       NC       NA         Operator wearing no jewelry       C       PC       NC       NA         Operator dried hands hygienically (using soap and water as per WHO guidelines)       C       PC       NC       NA         Operator of the following PPE       C       PC       NC       NA         Inhair cap       Inhair cap       Inhair cap       Inhair cap       Inhair cap         Ishoratory coal/coveralls       C       PC       NC       NA         Disinfection of hands using an hydro-alcoholic solution       C       PC       NC       NA         No open windows or doors       C       PC       NC       NA         No encurrent activity occurring in the same room       C       PC       NC       NA         No open windows or doors       C       PC       NC       NA         No open windows or doors       C       PC       NC       NA	compounding worksheet	С	PC	NC	NA	
Annocince Area relationship       C       PC       NC       NA         Operator wearing make-up of false nails       C       PC       NC       NA         Operator not wearing make-up of false nails       C       PC       NC       NA         Operator washed hands hygienically (using soap and water as per WHO guidelines)       C       PC       NC       NA         Operator dried hands using single-use paper towels       C       PC       NC       NA         Donning of the following PPE       C       PC       NC       NA         I hair cap       Imask       Iaboratory coat/coveralls       Imask       Imask         I aboratory coat/coveralls       Imask       Image: C       PC       NC       NA         Operator put on first pair of gloves       C       PC       NC       NA         No open windows or doors       C       PC       NC       NA         No concurrent activity occurring in the same room       C       PC       NC       NA         IL PREPARING THE WORKBENCH       Comments       Comments         Laminar flow turned on at least 15 minutes before beginning any drug handling       C       PC       NC       NA         Mace phase and compounding ingredients placed under the laminat flow: one doug prepar	compounding: verification of the drug name, dosage, quantity, type of solvent, equipment used, cleanliness, product batch n° and expiry dates, exactitude of the worksheets and the labels	с	PC	NC	NA	
Operator not wearing make-up or false nails       C       PC       NC       NA         Operator wearing no jewelry       C       PC       NC       NA         Operator washed hands hygienically (using soap and water as per WHO guidelines)       C       PC       NC       NA         Operator dried hands using single-use paper towels       C       PC       NC       NA         Donning of the following PPE       C       PC       NC       NA	II. HYGIENE AND PPE		PC			Comments
Operator wearing no jewelry       C       PC       NC       NA         Operator washed hands hygienically (using soap and water as per WHO guidelines)       C       PC       NC       NA         Operator dried hands using single-use paper towels       C       PC       NC       NA         Donning of the following PPE       C       PC       NC       NA         In hair cap       Imask	Operator wearing hospital uniform (not private clothes)	С	PC	NC	NA	
Operator washed hands hygienically (using soap and water as per WHO guidelines)       C       PC       NC       NA         Operator dried hands using single-use paper towels       C       PC       NC       NA         Donning of the following PPE       C       PC       NC       NA	Operator not wearing make-up or false nails	С	PC	NC	NA	
per WHO guidelines)       C       PC       NC       NA         Operator dried hands using single-use paper towels       C       PC       NC       NA         Donning of the following PPE       C       PC       NC       NA         Imask       Imask       Imask       Imask       Imask       Imask       Imask         Imask<	Operator wearing no jewelry	С	PC	NC	NA	
Donning of the following PPE       C       PC       NC       NA <ul> <li>hair cap</li> <li>mask</li> <li>laboratory coat/coveralls</li> <li>hospital clogs and/or overshoes</li> </ul> <ul> <li>Disinfection of hands using an hydro-alcoholic solution</li> <li>C</li> <li>PC</li> <li>NC</li> <li>NA</li> </ul> <ul> <li>dispersion of first pair of gloves</li> <li>C</li> <li>PC</li> <li>NC</li> <li>NA</li> </ul> <ul> <li>mask</li> <li>laboratory coat/coveralls</li> <li>hospital clogs and/or overshoes</li> <li>C</li> <li>PC</li> <li>NC</li> <li>NA</li> </ul> <ul> <li>mask relation of hands using an hydro-alcoholic solution</li> <li>C</li> <li>PC</li> <li>NC</li> <li>NA</li> </ul> <ul> <li>C</li> <li>PC</li> <li>NC</li> <li>NA</li> <li>C</li> <li>PC</li> <li>NC</li> <li>NA</li> <td></td><td>с</td><td>PC</td><td>NC</td><td>NA</td><td></td></ul>		с	PC	NC	NA	
In hair cap       Imask         In mask       Iaboratory coat/coveralls         In hospital clogs and/or overshoes       Imask         Disinfection of hands using an hydro-alcoholic solution       C       PC       NC       NA         Operator put on first pair of gloves       C       PC       NC       NA         III: PREPARATION ROOM       C       PC       NC       NA         Room cleanliness (dust, waste, insects)       C       PC       NC       NA         No open windows or doors       C       PC       NC       NA         No concurrent activity occurring in the same room       C       PC       NC       NA         ILaminar flow turned on at least 15 minutes before beginning any drug handling       C       PC       NC       NA         The biosafety cabinet is decontaminated (surfaces and sides) and allowed to dry       C       PC       NC       NA         Waste bin is correctly positioned beneath BSC       C       PC       NC       NA         Supplies and compounding ingredients placed under the laminar flow: one drug preparation at a time       C       PC       NC       NA         Decontamination (spraying) of non-sterile supplies       C       PC       NC       NA         Deperator removed outer packaging o	Operator dried hands using single-use paper towels	С	PC	NC	NA	
maskImage: Second state is a second state is a second state is a second state is seco	Donning of the following PPE	С	PC	NC	NA	
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Operator put on first pair of gloves       C       PC       NC       NA         III: PREPARATION ROOM       Comments         Room cleanliness (dust, waste, insects)       C       PC       NC       NA         No open windows or doors       C       PC       NC       NA         No concurrent activity occurring in the same room       C       PC       NC       NA         IV. PREPARING THE WORKBENCH       Comments         Laminar flow turned on at least 15 minutes before beginning any drug handling       C       PC       NC       NA         The biosafety cabinet is decontaminated (surfaces and sides) and allowed to dry       C       PC       NC       NA         Waste bin is correctly positioned beneath BSC       C       PC       NC       NA         Supplies and compounding ingredients placed under the laminar flow: one drug preparation at a time       C       PC       NC       NA         The operator removed outer packaging of sterile supplies (peeling technique) when placing them under the BSC       C       PC       NC       NA         Supplies and ingredients are correctly laid out (respecting clean zone, dirty zone, spacing)       C       PC       NC       NA	hospital clogs and/or overshoes					
III: PREPARATION ROOM       Comments         Room cleanliness (dust, waste, insects)       C       PC       NC       NA         No open windows or doors       C       PC       NC       NA         No concurrent activity occurring in the same room       C       PC       NC       NA         IV. PREPARING THE WORKBENCH       Comments       Comments         Laminar flow turned on at least 15 minutes before beginning any drug handling       C       PC       NC       NA         The biosafety cabinet is decontaminated (surfaces and sides) and allowed to dry       C       PC       NC       NA         Waste bin is correctly positioned beneath BSC       C       PC       NC       NA         Supplies and compounding ingredients placed under the laminar flow: one drug preparation at a time       C       PC       NC       NA         The operator removed outer packaging of sterile supplies (peeling technique) when placing them under the BSC       C       PC       NC       NA         Decontamination (spraying) of non-sterile supplies before placing them under the BSC       C       PC       NC       NA         Operator correctly put on sterile gloves       C       PC       NC       NA         Supplies and ingredients are correctly laid out (respecting clean zone, dirty zone, spacing)       C       <	Disinfection of hands using an hydro-alcoholic solution	С	PC	NC	NA	
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IV. PREPARING THE WORKBENCH       Comments         Laminar flow turned on at least 15 minutes before beginning any drug handling       C       PC       NC       NA         The biosafety cabinet is decontaminated (surfaces and sides) and allowed to dry       C       PC       NC       NA         Waste bin is correctly positioned beneath BSC       C       PC       NC       NA         Supplies and compounding ingredients placed under the laminar flow: one drug preparation at a time       C       PC       NC       NA         The operator removed outer packaging of sterile supplies (peeling technique) when placing them under the BSC       C       PC       NC       NA         Operator correctly put on sterile gloves       C       PC       NC       NA         Supplies and ingredients are correctly laid out (respecting clean zone, dirty zone, spacing)       C       PC       NC       NA	No open windows or doors	С	PC	NC	NA	
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and allowed to dryCPCNCNAWaste bin is correctly positioned beneath BSCCPCNCNASupplies and compounding ingredients placed under the laminar flow: one drug preparation at a timeCPCNCNAThe operator removed outer packaging of sterile supplies (peeling technique) when placing them under the BSCCPCNCNADecontamination (spraying) of non-sterile supplies before placing them under the BSCCPCNCNAOperator correctly put on sterile glovesCPCNCNASupplies and ingredients are correctly laid out (respecting clean zone, dirty zone, spacing)CPCNCNA		с	PC	NC	NA	
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(peeling technique) when placing them under the BSC       C       PC       NC       NA         Decontamination (spraying) of non-sterile supplies before placing them under the BSC       C       PC       NC       NA         Operator correctly put on sterile gloves       C       PC       NC       NA         Supplies and ingredients are correctly laid out (respecting clean zone, dirty zone, spacing)       C       PC       NC       NA	laminar flow: one drug preparation at a time	с	PC	NC	NA	
placing them under the BSC     C     PC     NC     NA       Operator correctly put on sterile gloves     C     PC     NC     NA       Supplies and ingredients are correctly laid out (respecting clean zone, dirty zone, spacing)     C     PC     NC     NA	(peeling technique) when placing them under the BSC	С	PC	NC	NA	
Operator correctly put on sterile glovesCPCNCNASupplies and ingredients are correctly laid out (respecting clean zone, dirty zone, spacing)CPCNCNA		С	PC	NC	NA	
clean zone, dirty zone, spacing)		С	PC	NC	NA	
V. HANDLING TECHNIQUES Comments		С	PC	NC	NA	
	V. HANDLING TECHNIQUES					Comments

The ventilation extraction grills have no obstructions	С	PC	NC	NA	
Operator makes no overly rapid movements	С	PC	NC	NA	
Vial septa are disinfected and dried if necessary (using sterile swabs)	С	PC	NC	NA	
Operator does not touch the different equipment tips/points (syringes, needles)	с	PC	NC	NA	
Air pressure levels between the vials and the work area are correctly balanced (if no spikes)	С	PC	NC	NA	
Operator uses swabs when withdrawing needles from vials	С	PC	NC	NA	
Needles are appropriately capped after use	С	PC	NC	NA	
In process verification of the volumes withdrawn from vials (double checking, gravimetry or otherwise)	С	PC	NC	NA	
Strong management of supplies and production materials used (immediately thrown into waste bin or put far enough out of reach so as not to impede the order of drug preparation)	с	PC	NC	NA	
VI. END OF COMPOUNDING					Comments
Chemotherapies are correctly labeled (time and date of preparation, for extemporaneous use, identification of the patient, product, dosage, route of administration, storage and conservation)	с	PC	NC	NA	
The BSC is cleaned at the end of the drug preparation session (waste removal, spraying with ethanol 70%, appropriate S-shaped cleaning technique)	с	PC	NC	NA	
Appropriate management of left-over, unused drugs (labeling, expiry date in < 24 h, storage and conservation, sachets)	с	PC	NC	NA	
VII. REMOVAL OF PPE					Comments
Operator removed PPE before leaving the drug preparation room area	С	PC	NC	NA	
VIII. RECONCILIATION before dispensing					Comments
There is a process for verifying that the chemotherapy formulation, the prescription and the compounding protocol match (verification of the compounding worksheet and the label)	с	PC	NC	NA	
There is a visual inspection of the drug's container, its intactness and seals (also verify the type of tubing—with or without a filter)	с	PC	NC	NA	
Visual inspection of the contents (color, clearness, lack of visible particles)	с	PC	NC	NA	
Documentation of the reconciliation process on the compounding worksheet	с	PC	NC	NA	

## C. Observation checklist for preparation under a biosafety cabinet and inside a cleanroom

### Rating Circle the

appropriate rating         Comments         Preparation of compounding worksheet (calculation of the volume of the anticancer drug to be drawn from the vial)       C       PC       NC       NA         Preparation of the chemotherapy formulation's label (identification of the patient, the product, the dosage, the route of administration, storage and conservation, and time and date of expiry)       C       PC       NC       NA         Collection of equipment and ingredients for compounding based on the compounding protocol       C       PC       NC       NA         Product batch numbers and expiry dates are traceable       C       PC       NC       NA         Double checking of the equipment and ingredients for compounding: verification of the drug name, dosage, quantity, type of solvent, equipment used, cleanliness, product batch n' and expiry dates, exactitude of the worksheets and the labels prepared       C       PC       NC       NA         Decontamination of all equipment / and ingredients / and preparations before they are brought the cleanroom       C       PC       NC       NA         I. HYGIENE AND PPE       C       PC       NC       NA          Operator wearing hospital uniform (not private clothes)       C       PC       NC       NA         Operator wearing no jewelry       C       PC       NC       NA          Operator	
Preparation of compounding worksheet (calculation of the volume of the anticancer drug to be drawn from the vial)CPCNCNAPreparation of the chemotherapy formulation's label (identification of the patient, the product, the dosage, the route of administration, storage and conservation, and time and date of expiry)CPCNCNACollection of equipment and ingredients for compounding based on the compounding protocolCPCNCNAProduct batch numbers and expiry dates are traceable compounding: verification of the drug name, dosage, quantity, type of solvent, equipment used, cleanliness, product batch n° and expiry dates, exactitude of the worksheets and the labels preparedCPCNCNADecontamination of all equipment / and ingredients / and preparations before they are brought the cleanroomCPCNCNA <b>I. HYGIENE AND PPEC</b> PCNCNAOperator wearing no jewelryCPCNCNAOperator wearing no jewelryCPCNCNAOperator dried hands using single-use paper towelsCPCNCNAOperator dried hands using single-use paper towelsCPCNCNA	
(identification of the patient, the product, the dosage, the route of administration, storage and conservation, and time and date of expiry)CPCNCNACollection of equipment and ingredients for compounding based on the compounding protocolCPCNCNAProduct batch numbers and expiry dates are traceable compounding: verification of the drug name, dosage, quantity, type of solvent, equipment used, cleanliness, product batch n° and expiry dates, exactitude of the worksheets and the labels preparedCPCNCNAI. HYGIENE AND PPECPCNCNAOperator wearing hospital uniform (not private clothes) outer as per WHO guidelines)CPCNCNAOperator washed hands hygienically (using soap and water as per WHO guidelines)CPCNCNAOperator dried hands using single-use paper towelsCPCNCNAOnning of the following PPE (in the airlock)CPCNCNA	
based on the compounding protocolCPCNCNAProduct batch numbers and expiry dates are traceableCPCNCNADouble checking of the equipment and ingredients for compounding: verification of the drug name, dosage, quantity, type of solvent, equipment used, cleanliness, product batch n° and expiry dates, exactitude of the worksheets and the labels preparedCPCNCNADecontamination of all equipment / and ingredients / and preparations before they are brought the cleanroomCPCNCNAII. HYGIENE AND PPECPCNCNAOperator wearing hospital uniform (not private clothes)CPCNCNAOperator wearing no jewelryCPCNCNAOperator washed hands hygienically (using soap and water as per WHO guidelines)CPCNCNAOperator dried hands using single-use paper towelsCPCNCNADonning of the following PPE (in the airlock)CPCNCNA	
Double checking of the equipment and ingredients for compounding: verification of the drug name, dosage, quantity, type of solvent, equipment used, cleanliness, product batch n° and expiry dates, exactitude of the worksheets and the labels preparedCPCNCNADecontamination of all equipment / and ingredients / and preparations before they are brought the cleanroomCPCNCNAII. HYGIENE AND PPECPCNCNAOperator wearing hospital uniform (not private clothes)CPCNCNAOperator wearing no jewelryCPCNCNAOperator washed hands hygienically (using soap and water as per WHO guidelines)CPCNCNAOperator dried hands using single-use paper towelsCPCNCNADonning of the following PPE (in the airlock)CPCNCNA	
compounding: verification of the drug name, dosage, quantity, type of solvent, equipment used, cleanliness, product batch n° and expiry dates, exactitude of the worksheets and the labels preparedCPCNCNADecontamination of all equipment / and ingredients / and preparations before they are brought the cleanroomCPCNCNA <b>II. HYGIENE AND PPE</b> CPCNCNAOperator wearing hospital uniform (not private clothes)CPCNCNAOperator wearing no jewelryCPCNCNAOperator wearing no jewelryCPCNCNAOperator washed hands hygienically (using soap and water as per WHO guidelines)CPCNCNAOperator dried hands using single-use paper towellsCPCNCNADonning of the following PPE (in the airlock)CPCNCNA	
preparations before they are brought the cleanroomCPCNCNAII. HYGIENE AND PPECommentsOperator wearing hospital uniform (not private clothes)CPCNCNAOperator not wearing make-up or false nailsCPCNCNAOperator wearing no jewelryCPCNCNAOperator washed hands hygienically (using soap and water as per WHO guidelines)CPCNCNAOperator dried hands using single-use paper towelsCPCNCNADonning of the following PPE (in the airlock)CPCNCNA	
Operator wearing hospital uniform (not private clothes)CPCNCNAOperator not wearing make-up or false nailsCPCNCNAOperator wearing no jewelryCPCNCNAOperator washed hands hygienically (using soap and water as per WHO guidelines)CPCNCNAOperator dried hands using single-use paper towelsCPCNCNADonning of the following PPE (in the airlock)CPCNCNA	
Operator not wearing make-up or false nails       C       PC       NC       NA         Operator wearing no jewelry       C       PC       NC       NA         Operator washed hands hygienically (using soap and water as per WHO guidelines)       C       PC       NC       NA         Operator dried hands using single-use paper towels       C       PC       NC       NA         Donning of the following PPE (in the airlock)       C       PC       NC       NA	
Operator wearing no jewelry       C       PC       NC       NA         Operator washed hands hygienically (using soap and water as per WHO guidelines)       C       PC       NC       NA         Operator dried hands using single-use paper towels       C       PC       NC       NA         Donning of the following PPE (in the airlock)       C       PC       NC       NA	
Operator washed hands hygienically (using soap and water as per WHO guidelines)       C       PC       NC       NA         Operator dried hands using single-use paper towels       C       PC       NC       NA         Donning of the following PPE (in the airlock)       C       PC       NC       NA	
water as per WHO guidelines)     C     PC     NC     NA       Operator dried hands using single-use paper towels     C     PC     NC     NA       Donning of the following PPE (in the airlock)     C     PC     NC     NA	
Donning of the following PPE (in the airlock) C PC NC NA	
n hair cap	
- · · · · · · · · · · · · · · · · · · ·	
n mask	
laboratory coat/coveralls	
□ hospital clogs	
Operator put on overshoes on passing between the clean and dirty zones C PC NC NA	
Operator disinfected hands using a hydro-alcoholic solution C PC NC NA	
Operator put on first pair of gloves C PC NC NA	
Sanitize gloves with ethanol 70% C PC NC NA	
III. PREPARATION OF THE WORKBENCH         Comments	
Laminar flow turned on at least 15 minutes before     C     PC     NA	
The biosafety cabinet is decontaminated (surfaces and sides) and allowed to dry	
Waste bin is correctly positioned beneath the BSC   C   PC   NA	
Supplies and compounding ingredients placed under the laminar flow: one drug preparation at a time C PC NC NA	
The operator removed outer packaging of sterile supplies (peeling technique) when placing them under the BSC C PC NC NA	
Decontamination (spraying) of non-sterile supplies C PC NC NA	
Operator correctly put on sterile gloves C PC NC NA	
Supplies and ingredients are correctly laid out (clean zone, dirty zone, spacing)	
IV. MANIPULATION TECHNIQUES Comments	
The ventilation extraction grills have no obstructions C PC NC NA	

Operator makes no overly rapid movements	С	PC	NC	NA	
Vial septa are disinfected and dried if necessary (using sterile swabs)	С	PC	NC	NA	
Operator does not touch the different equipment tips/points (syringes, needles)	С	PC	NC	NA	
Air pressure levels are correctly balanced (no pressure spikes or air intake)	С	PC	NC	NA	
Operator uses swabs when withdrawing needles from vials	С	PC	NC	NA	
Needles are appropriately capped after use	С	PC	NC	NA	
In process verification of the volumes withdrawn from vials (double checking, gravimetry or otherwise)	С	PC	NC	NA	
Strong management of supplies and production materials used (immediately thrown into waste bin or put far enough out of reach so as not to impede the order of drug preparation)	с	PC	NC	NA	
V. END OF COMPOUNDING					Comments
The chemotherapy has been correctly labeled (identification of the patient, product, dosage, route of administration, conservation, date of administration, expiry time and date)	с	PC	NC	NA	
The BSC is cleaned at the end of the drug preparation session (waste removal, spraying with ethanol 70%, appropriate S-shaped cleaning technique)	с	PC	NC	NA	
Appropriate management of left-over, unused drugs (labeling, expiry date in < 24 h, storage and conservation, sachets)	С	PC	NC	NA	
VI. REMOVING PPE	T				Comments
Operator removes PPE before leaving the preparation area (in the airlock's "dirty" area)	С	PC	NC	NA	
VII. RECONCILIATION before dispensing					Comments
There is a process for verifying that the chemotherapy formulation, the prescription and the manufacturing protocol match (verification of the manufacturing worksheet and the label)	с	PC	NC	NA	
There is a visual inspection of the drug's container, its intactness and seals (also verify the type of tubing—with or without a filter)	с	PC	NC	NA	
Visual inspection of the contents (color, clearness, lack of visible particles)	С	PC	NC	NA	
Documentation of the reconciliation process on the compounding worksheet	С	PC	NC	NA	

### ANNEX 3: Structured observation checklist for the administration of iv chemotherapy

Circle the appropriate rating

Α	BEFORE ADMINISTRATION			
1	PREPARATION OF EQUIPMENT AND MATERIALS			
1	Nurse disinfects hands using a hydro-alcoholic solution (as per WHO recommendations) throughout the treatment and care procedures		8 stages, 20–30 seconds Hand disinfection must take place at the WHO's Five Moments for Hand Hygiene	C PC NC NA
2	Disinfection of the drug administration trolley or drug administration tray usir ad hoc disinfectant	ng an		C PC NC NA
3	Preparation of the equipment and supplies necessary for administration		e.g., swabs, waste bins, catheters, etc.	C PC NC NA
Ш	NURSES CLOTHING		· · · · · ·	
4	Appropriate PPE			C PC NC NA
	Long-sleeved laboratory coat and/or coveralls		Pulled tight at the cuffs	
	Mask		Surgical	
	First pair of gloves		Non-sterile	
	Protection goggles		If there is a risk of splashing or spillage	
Ш	VERIFICATION THAT THE TREATMENT PROTOCOL MATCHES THE PR	RODUCT	: checklist	
5	Verification that the treatment protocol matches the product administered		Possibly use a checklist	C PC NC NA
	Methods of product storage and conservation		Refrigeration, room temperature, light sensitivity	
	Patient identification		(e.g., family name, given names, date of birth, patient identification number)	
	Name of the product to be administered			
	Dosage			
	Route of administration		Intravenous, intramuscular	
	Today's date corresponds to the date of administration in the protocol			
				I
	Date and time of treatment match			

6	Removal and disposal of gloves as per the waste disposal plan	To avoid any contamination of the working environment, gloves must be removed and disposed of as soon as the drug administrator must touch any piece of equipment or material not used in drug administration	(	С	PC	NC	NA
7	Nurse disinfects hands using a hand disinfectant solution		(	С	PC	NC	NA
IV	PREPARING THE PATIENT						
9	Verification of the patient's identity (family name, given names, date of birth) and that it matches with the patient identity on the drug treatment protocol	Family name, given names, date of birth	C	С	PC	NC	NA
10	Ensure that the patient has been informed and educated about the treatment he/she is going to receive	Effects, risks, and side-effects	C	С	PC	NC	NA
В	DURING ADMINISTRATION						
V	CHECKS						
11	Verification that the modalities of the drug's administration (route of administration, duration of administration, flow rate, etc.) agree with the medical treatment protocol, the nurse's protocol, and the product's specificities	Possibly use a checklist	C	С	PC	NC	NA
12	Documentation on the verification (point 11) is in the patient's record		(	С	PC	NC	NA
VI	INTRAVENOUS ADMINISTRATION	11					
13	Nurse disinfects hands using an hydro-alcoholic solution		C	С	PC	NC	NA
14	Nurse puts on the first pair of gloves	Non-sterile, non-powdered	(	С	PC	NC	NA
	Placement and securing of a new, short peripheral venous catheter at a site with	Avoid the wrists, the elbow crease, and the backs of the hand, legs and feet. If there is a prior puncture site, it is preferable to choose the other					
15	no prior puncture	arm or, if this is impossible, a puncture site proximal to the first one Note: if the catheter was placed on the same day and there was venous reflux		С	PC	NC	NA
16	Monitoring for potential venous reflux and rinsing of the catheter with 10 mL of NaCl		(	С	PC	NC	NA
17	Nurse puts on the second pair of gloves over the first	Ensure that all appropriate PPE are being worn		С	PC	NC	NA
ADM	INISTRATION VIA PERFUSION						

19       The infusion rate is set as per the protocol       C       PC       Nu         20       Removal of both pairs of gloves and disposal as per the waste management plan       C       PC       Nu         21       Disinfection of hands using an hydro-alcoholic solution       C       PC       Nu         22       Clinical monitoring of the patient during the perfusion as per the drug administration plan       Pulse, blood pressure and body temp.       C       PC       Nu         23       Regular monitoring to ensure that there are no signs of extravasations and for potential reflux       Attentive listening to the patient and monitoring of the puncture and for potential reflux       C       PC       Nu         24       Nurse puts on a new pair of gloves       Non-sterile, non-powdered       C       PC       Nu         25       The perfusion catheter is flushed with 50 mL of a compatible isotonic solution between each product and after the final one       C       PC       Nu         26       The precise order of administration of the products is followed       C       PC       Nu         27       Sterile swabs soaked in chlorhexidine alcohol or povidone-iodine are placed beneath the i.v. connector       This is unnecessary if it is a Luer-Lock syringe       C       PC       Nu         32       Sterile swabs soaked in chlorhexidine alcohol or povidone-iodine are placed beneath the i.v. con		onnection of the perfusion to the catheter, which has been flushed using an otonic solution	18
20       management plan       C       PC       NC         21       Disinfection of hands using an hydro-alcoholic solution       C       PC       NC         22       Clinical monitoring of the patient during the perfusion as per the drug administration plan       C       PC       NC         23       Regular monitoring to ensure that there are no signs of extravasations       Attentive listening to the patient and monitoring of the puncture and for potential reflux       C       PC       NC         24       Nurse puts on a new pair of gloves       Non-sterile, non-powdered       C       PC       NC         25       The perfusion catheter is flushed with 50 mL of a compatible isotonic solution between each product and after the final one       Non-sterile, non-powdered       C       PC       NC         26       The perfusion catheter is flushed with 50 mL of a compatible isotonic solution between each product and after the final one       C       PC       NC         27       ster is dressed using a dry bandage or the catheter is withdrawn, and the puncture is the reatment, the catheter is withdrawn, and the puncture is the isotonic solution of the hospital stay       C       PC       NC         28       Sterile swabs soaked in chlorhexidine alcohol or povidone-iodine are placed beneath the i.v. connector       This is unnecessary if it is a Luer-Lock syringe       C       PC       NC         32	C PC NC NA		19
22       Clinical monitoring of the patient during the perfusion as per the drug administration plan       Pulse, blood pressure and body temp.       C       PC       Nu         23       Regular monitoring to ensure that there are no signs of extravasations       Attentive listening to the patient and monitoring of the puncture and for potential reflux       C       PC       Nu         24       Nurse puts on a new pair of gloves       Non-sterile, non-powdered       C       PC       Nu         25       The perfusion catheter is flushed with 50 mL of a compatible isotonic solution between each product and after the final one       C       PC       Nu         26       The precise order of administration of the products is followed       C       PC       Nu         27       site is dressed using a dry bandage or the catheter is closed and left in place for the duration of the hospital stay       C       PC       Nu         INTRAVENOUS ADMINISTRATION using a short venous catheter         32       place doeneath the i.v. connector       This is unnecessary if it is a Luer-Lock syringe       C       PC       Nu         34       Connection of the patient during the injection as per the drug administration plan       C       PC       Nu         34       Connection of the patient during the injection as per the drug administration plan       Heart rate, blood pressure and temperature       C       <			20
22       administration plan       temp.       C       PC       NC         23       Regular monitoring to ensure that there are no signs of extravasations       Attentive listening to the patient and monitoring of the puncture and for potential reflux       C       PC       NC         24       Nurse puts on a new pair of gloves       Non-sterile, non-powdered       C       PC       NC         25       The perfusion catheter is flushed with 50 mL of a compatible isotonic solution between each product and after the final one       C       PC       NC         26       The precise order of administration of the products is followed       C       PC       NC         27       At the end of the treatment, the catheter is withdrawn, and the puncture site is dressed using a dry bandage or the catheter is closed and left in place for the duration of the hospital stay       C       PC       NC         INTRAVENOUS ADMINISTRATION using a short venous catheter         This is unnecessary if it is a Luer-Lock syringe         C       PC       NC         34       Connection of the protocol is adhered to       C       PC       NC         Attentive listening to the patient administration place or the catheter or is adhered to       C       PC       NC         34       Connection of the hospital stay       C	C PC NC NA	sinfection of hands using an hydro-alcoholic solution	21
23       Regular monitoring to ensure that there are no signs of extravasations       and monitoring of the puncture and for potential reflux       C       PC       Not         24       Nurse puts on a new pair of gloves       Non-sterile, non-powdered       C       PC       Not         25       The perfusion catheter is flushed with 50 mL of a compatible isotonic solution between each product and after the final one       C       PC       Not         26       The precise order of administration of the products is followed       C       PC       Not         27       site is dressed using a dry bandage or the catheter is withdrawn, and the puncture is losed and left in place for the duration of the hospital stay       C       PC       Not         INTRAVENOUS ADMINISTRATION using a short venous catheter         32       Sterile swabs soaked in chlorhexidine alcohol or povidone-iodine are placed beneath the i.v. connector       This is unnecessary if it is a Luer-Lock syringe       C       PC       Not         34       Connection of the cytotoxic drug's syringe       C       PC       Not         35       The injection duration indicated on the protocol is adhered to       C       PC       Not         36       Clinical monitoring of the patient during the injection as per the drug administration plan       Heart rate, blood pressure and temperature       C       PC       Not	C PC NC NA		22
25       The perfusion catheter is flushed with 50 mL of a compatible isotonic solution between each product and after the final one       C       PC       Nd         26       The precise order of administration of the products is followed       C       PC       Nd         27       Sterile solution between each product and after the final one       C       PC       Nd         27       At the end of the treatment, the catheter is withdrawn, and the puncture site is dressed using a dry bandage or the catheter is closed and left in place for the duration of the hospital stay       C       PC       Nd         INTRAVENOUS ADMINISTRATION using a short venous catheter         32       Sterile swabs soaked in chlorhexidine alcohol or povidone-iodine are placed beneath the i.v. connector       This is unnecessary if it is a Luer-Lock syringe       C       PC       Nd         34       Connection of the cytotoxic drug's syringe       C       PC       Nd         35       The injection duration indicated on the protocol is adhered to       C       PC       Nd         36       Clinical monitoring of the patient during the injection as per the drug administration plan       Heart rate, blood pressure and temperature       C       PC       Nd         37       Monitoring to ensure that there are no signs of extravasations       Attentive listening to the patient and monitoring of the puncture       C       PC		egular monitoring to ensure that there are no signs of extravasations	23
23       solution between each product and after the final one       C       PC       NC         26       The precise order of administration of the products is followed       C       PC       NC         26       The end of the treatment, the catheter is withdrawn, and the puncture site is dressed using a dry bandage or the catheter is closed and left in place for the duration of the hospital stay       C       PC       NC <i>INTRAVENOUS ADMINISTRATION using a short venous catheter</i> 32       Sterile swabs soaked in chlorhexidine alcohol or povidone-iodine are placed beneath the i.v. connector       This is unnecessary if it is a Luer-Lock syringe       C       PC       NC         34       Connection of the cytotoxic drug's syringe       C       PC       NC         35       The injection duration indicated on the protocol is adhered to       C       PC       NC         36       Clinical monitoring of the patient during the injection as per the drug administration plan       Heart rate, blood pressure and temperature       C       PC       NC         37       Monitoring to ensure that there are no signs of extravasations       Attentive listening to the patient and monitoring of the puncture       C       PC       NC	C PC NC NA	urse puts on a new pair of gloves	24
At the end of the treatment, the catheter is withdrawn, and the puncture site is dressed using a dry bandage or the catheter is closed and left in place for the duration of the hospital stay       C       PC       No         INTRAVENOUS ADMINISTRATION using a short venous catheter       INTRAVENOUS ADMINISTRATION using a short venous catheter       C       PC       No         32       Sterile swabs soaked in chlorhexidine alcohol or povidone-iodine are placed beneath the i.v. connector       This is unnecessary if it is a Luer-Lock syringe       C       PC       No         34       Connection of the cytotoxic drug's syringe       C       PC       No         35       The injection duration indicated on the protocol is adhered to plan       C       PC       No         36       Clinical monitoring of the patient during the injection as per the drug administration plan       Heart rate, blood pressure and temperature       C       PC       No         37       Monitoring to ensure that there are no signs of extravasations       Attentive listening to the patient and monitoring of the puncture       C       PC       No	C PC NC NA	he perfusion catheter is flushed with 50 mL of a compatible isotonic lution between each product and after the final one	25
27       site is dressed using a dry bandage or the catheter is closed and left in place for the duration of the hospital stay       C       PC       No         INTRAVENOUS ADMINISTRATION using a short venous catheter         32       Sterile swabs soaked in chlorhexidine alcohol or povidone-iodine are placed beneath the i.v. connector       This is unnecessary if it is a Luer-Lock syringe       C       PC       No         34       Connection of the cytotoxic drug's syringe       C       PC       No         35       The injection duration indicated on the protocol is adhered to       C       PC       No         36       Clinical monitoring of the patient during the injection as per the drug administration plan       Heart rate, blood pressure and temperature       C       PC       No         37       Monitoring to ensure that there are no signs of extravasations       Attentive listening to the patient and monitoring of the puncture       C       PC       No	C PC NC NA	e precise order of administration of the products is followed	26
32       Sterile swabs soaked in chlorhexidine alcohol or povidone-iodine are placed beneath the i.v. connector       This is unnecessary if it is a Luer-Lock syringe       C       PC       No         34       Connection of the cytotoxic drug's syringe       C       PC       No         35       The injection duration indicated on the protocol is adhered to       C       PC       No         36       Clinical monitoring of the patient during the injection as per the drug administration plan       Heart rate, blood pressure and temperature       C       PC       No         37       Monitoring to ensure that there are no signs of extravasations       Attentive listening to the patient and monitoring of the puncture       C       PC       No	C PC NC NA	e is dressed using a dry bandage or the catheter is closed and left in	27
32       placed beneath the i.v. connector       Luer-Lock syringe       C       PC       Nd         34       Connection of the cytotoxic drug's syringe       C       PC       Nd         35       The injection duration indicated on the protocol is adhered to       C       PC       Nd         36       Clinical monitoring of the patient during the injection as per the drug administration plan       Heart rate, blood pressure and temperature       C       PC       Nd         37       Monitoring to ensure that there are no signs of extravasations       Attentive listening to the patient and monitoring of the puncture       C       PC       Nd		ENOUS ADMINISTRATION using a short venous catheter	INTR
35       The injection duration indicated on the protocol is adhered to       C       PC       No         36       Clinical monitoring of the patient during the injection as per the drug administration plan       Heart rate, blood pressure and temperature       C       PC       No         37       Monitoring to ensure that there are no signs of extravasations       Attentive listening to the patient and monitoring of the puncture       C       PC       No	C PC NC NA		32
36       Clinical monitoring of the patient during the injection as per the drug administration plan       Heart rate, blood pressure and temperature       C       PC       No         37       Monitoring to ensure that there are no signs of extravasations       Attentive listening to the patient and monitoring of the puncture       C       PC       No	C PC NC NA	onnection of the cytotoxic drug's syringe	34
30     plan     temperature       37     Monitoring to ensure that there are no signs of extravasations     Attentive listening to the patient and monitoring of the puncture     C	C PC NC NA	e injection duration indicated on the protocol is adhered to	35
37 Monitoring to ensure that there are no signs of extravasations and monitoring of the puncture C PC NO	C PC NC NA		36
and for potential reflux		onitoring to ensure that there are no signs of extravasations	37
38       The perfusion catheter is flushed using 50 mL of a compatible isotonic solution between each product and after the final one       C       PC       No	C PC NC NA		38
39 The order of administration of products is properly respected       C PC No	C PC NC NA	e order of administration of products is properly respected	39
40At the end of the treatments, the catheter is withdrawn, and the puncture site is dressed using a dry bandage or the catheter is closed and left in place for the duration of the hospital stayCPCNC	C PC NC NA	e is dressed using a dry bandage or the catheter is closed and left in	40
		FTER ADMINISTRATION	С
		ASTE MANAGEMENT	VII

41	All used consumable equipment and materials are disposed of directly into waste bins as per the waste management plan	(cytotoxic drugs, needles and sharps, infectious waste, PPE, excreta)	С	PC N	IC N/	ł
42	Disinfection of the drug administration trolley or drug administration tray using an ad hoc disinfectant		С	PC N	IC N	٦
43	Disinfection of the patient's armchair, bed, seat, and the base of the perfusion stand using an ad hoc disinfectant		С	PC N	IC N	ł
44	Nurse removes and disposes of gloves		С	PC N	IC N/	٦
45	Nurse washes hands using soap and water as per WHO recommendations, then, after drying, disinfects hands using an hydro-alcoholic solution		С	PC N	IC N/	٩
VIII	DOCUMENTATION					
46	Details about the drug's administration are traceable in the patient's hospital records		С	PC N	IC N	٩
47	There is appropriate documentation on patient monitoring (vital signs, health status etc.)		С	PC N		٩