

STANDARD OPERATING PROCEDURE	Medication Prescribing with the HIS System
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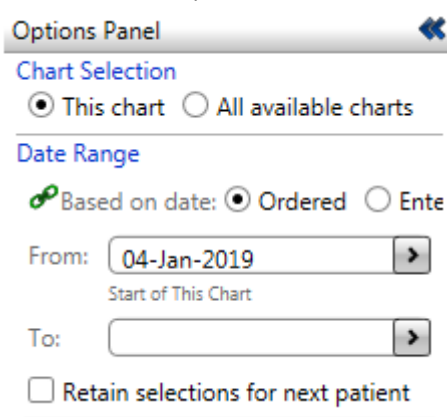
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1 INTRODUCTION

- 1.1 Since June 2016 the HIS system is the main method of prescribing for inpatients and this Standard Operating Policy (SOP) only applies to those areas where the HIS system is being utilised for prescribing and administration of medication.
- 1.2 This procedure focuses on showing relevantly qualified staff how to prescribe medication within the HIS system.
- 1.3 All medication prescribing is now ordered on the SCM system with the small number of exceptions.
 - 1.3.1 Regular IV Fluids
 - 1.3.2 Sliding scale Insulin
 - 1.3.3 All complex paediatric infusions that are currently on the infusion chart
 - 1.3.4 Small number of complex infusions (eg, IV immunoglobulins)
- 1.4 This procedure should be used in conjunction with the overarching Medicines Management Policy (TW10/037).
- 1.5 NB: All screenshots used in this SOP use fictional patients.

2 BASIC e-PRESCRIBING PRINCIPLES WHEN USING HIS

- 2.1 Check the Patient Banner Bar – to ensure you have selected the correct patient. It's good practice to get into this habit every time you are prescribing, to reduce the risk of misidentification errors.
- 2.2 Check the patient's 'Orders Tab' – it is good practice to review the patient's 'Orders Tab' to ensure that you can review the current medication already prescribed, before initiating new prescriptions. This reduces risk of interactions, and duplicate orders.
- 2.3 The 'Orders Tab' has an important setting to distinguish which orders you want to be displayed. The 'Chart Selection' option allows users to display either orders on 'This Chart' only, or to see orders placed on 'All available charts'. Although the 'All available charts' option is useful when reviewing patients retrospectively, it is strongly recommended that ward-based users have their setting at 'This Chart' so they can correctly see the orders pertaining to this episode of care. (see screenshot below)



- 2.4 Review patient's 'Allergy Status' – the HIS system will prevent you from proceeding with medication prescribing if the allergy information is either not documented, or not 'reviewed'.

3 ORDERING STANDARD MEDICATION ORDER

3.1 Click on the 'Enter Order' icon on the toolbar.



3.2 Start typing the name of the drug you wish to prescribe, and then select the correct item to open the order form.

3.3 Remember it is always best to type as many letters of the drug name as possible as this significantly reduces the risk of selection error risk of similar sounding drugs.

3.4 When the order form opens fill in the relevant details (e.g. dose, route, start date, frequency etc.).

3.4.1 The red box displays 'quick-pick' doses – these have been configured for some drug where there are some frequently used doses

3.4.2 The green box displays the section to complete dose, unit of measure (UOM), route frequency, PRN, PRN reason etc.

3.4.3 The brown box displays the 'Extra Administration Information' field, this is where the prescribers, or pharmacists can add additional information to display on the orders tab, and also on the eMAR when the nurses are administering drugs. This field can be used for any additional administration instructions, calculations used for dose etc.

3.4.4 The blue box displays the 'Stop after', and 'Stop date/time' fields. These are to be used for medication that requires a course length, or is to be stop after a particular period of time

- 3.5 Ensure that if the medication is not to be started on the day of prescribing/ordering, that the start date at the top of the form is amended. This can be selected easily from the calendar that displays. HIS orders default to the current date.
- 3.6 When all information has been entered, click OK, to add the order to the order session summary.

4 PRESCRIBING ADDITIONAL MEDICATION DURING SAME SESSION

- 4.1 More than one medication order can be placed during the same 'order session'.

The screenshot shows the 'Order Entry Worksheet' for patient 'TRAINING, Suzanne (Mrs)'. The patient's details include: Born 30-May-1..., Gender Female, NHS No: Unknown, Address Buckingha..., Phone and Email Un..., MRN 10000630, Location Swinley Wa..., and No Known... Allergy Details. The 'Requested By' is 'Me' and 'Source' is 'Allergy Details'. The 'Date' is set to '...', 'Time' is '...', and 'Session Type' is 'Standard'. The 'Reason' is empty. The 'Manual Entry' dropdown is set to 'Manual Entry' and 'Searching for ...' is empty. The 'Add...' button is highlighted with a red box. The medication list shows: Flu (Influenza Swabs), Flucloxacillin 125mg/5ml oral solution sugar free, Flucloxacillin 250mg/5ml oral solution sugar free, Flucloxacillin capsules, Flucloxacillin injection, and Fluconazole 150mg capsules. The summary table shows: Flucloxacillin capsules - Give 500 multiGRAM(s) Oral Every 6 hours before food. Antibiotic Indication: UTI. Stop After: 5 Days. Date Due to Review: 05-Jun-2016 00:00. The status is 'Pending' and the date is '02-Jun-2016'. The time is '17:13'. The buttons at the bottom are: Submit Order(s) for Training, Suzanne, Hide Worksheet, Cancel, and Help.

- 4.2 When the first order has been added to the order session summary, you can click 'Add' (see red box) to continue to add another order, this can be repeated until all the desired orders have been placed.
- 4.3 Once all the desired orders are in the order session summary click 'Submit order(s) for....', and all orders will be placed together on the patient's record.

5 VIEWING ORDERS PLACED ON A PATIENT'S RECORD

5.1 All orders placed in HIS on the patient's record will appear within the 'Orders Tab'.

The screenshot shows the 'Orders' tab in the HIS system. The 'Medications' section is expanded, showing a list of orders. The 'Pathology' section is also expanded, showing a single order for Gentamicin level (random). The interface includes a navigation bar at the top with tabs like Patient List, Patient Info, Documents, Flowsheets, Orders, Results, Clinical Summary, Visit Record Review, Task Item List, and More Info. Below the navigation bar is a toolbar with various icons. The main content area is divided into sections: Medications (0/10) and Pathology (0/1). The Medications section is highlighted with a red box and contains a list of orders with columns for Order Date, Status, Stop Date, and Entry Date. The Pathology section is also highlighted with a red box and contains a single order for Gentamicin level (random).

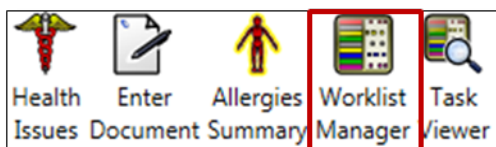
Order Date	Status	Stop Date	Entry Date
07-Mar-2016 13:00	Active	12-Mar-2016 12:59	07-Mar-2016 12:52
21-Mar-2016	Active		21-Mar-2016 17:38
21-Mar-2016	Active	31-Mar-2016 17:38	21-Mar-2016 17:39
21-Mar-2016	Active		21-Mar-2016 17:38
21-Mar-2016	Discontinued	21-Mar-2016 17:40	21-Mar-2016 17:38
21-Mar-2016	Active		21-Mar-2016 17:38
21-Mar-2016	Active		21-Mar-2016 17:38
21-Mar-2016	Active		21-Mar-2016 17:38
21-Mar-2016	Active		21-Mar-2016 17:38
24-Mar-2016	Active		24-Mar-2016 10:17

Medication Section Key:

- Order Summary List** - The medication section displays all active, suspended, discontinued and pending drugs for the patient's visit
- Order Date** – This is the start date of the medication
- Status** –
 Active = current medication
 Pending = medication order placed to start in the future
 Suspended = decision has been made not to administer the medication to the patient temporarily
 Discontinued = medication has been stopped by a prescriber
 Cancelled = medication has been stopped before any tasks were actioned
 Completed = All the tasks associated with that order have been actioned (**NB: Orders will go 'Completed' status when all tasks have been actioned, this can be when nurses have marked as 'Not Done'. Therefore, it is important to remember that a 'Completed' status does not always indicate all doses have been administered**)
- Stop Date** = The date the medication is either due to be stopped (eg, end of antibiotic course) or the date the medication has been discontinued
- Entry Date** = This is the date the order was submitted on the HIS System

6 VIEWING THE ELECTRONIC MEDICATION ADMINISTRATION RECORD (eMAR)

- 6.1 The eMAR is the electronic medication chart for nursing staff to document administration of medication. To check whether medication has been administered, and when, it is important to use the eMAR.
- 6.2 The eMAR also displays the medication tasks due in the next 24 hours.
- 6.3 To access the eMAR, click on the 'Worklist Manager' icon on the toolbar.



See below for sample of patient's eMAR

File Edit View Actions Help Test

Close 5

TRAINER, Susan (Miss) Born 11-Jun-1998 (17y 8m) Gender Female

Address THE 1, 71 LEE LANE, HORWICH, B... Phone and Email 01942 820012 MRN 00013458 Location yyBucket

Medications (eMAR) 12 hr Selected Pat 1 ify... Scheduling [All] Status [All]

From 11-Feb-2016 03:00 to 11-Feb-2016 23:00 by 1 hour intervals Update

Task Description	Task Start	Task Stop	10Feb16	11Feb16
			22:00	03:00 04:00 05:00 06:00 07:00 08:00 09:00 10:00 11:00 12:00 13:00 14:00 15:00
TRAINER, SUSAN (11-Jun-1998): 00013458/b00013458; yyBu				
Medications				
<ul style="list-style-type: none"> Co-careldopa 25mg/100mg tablets Give 25 Tablet(s) Oral (Now and Then: This is order 1 of 1) 	10-Feb-2016 00:00		2	
<ul style="list-style-type: none"> Amlodipine tablets Give 10 milliGRAM(s) Oral Lunchtime 	10-Feb-2016 16:47			
<ul style="list-style-type: none"> Buprenorphine (Subutex) 8mg sublingual tablets sugar free Give 8 milliGRAM(s) SubLingual Lunchtime Pharmacy/Administration Information: Controlled Drug 	10-Feb-2016 16:47			
<ul style="list-style-type: none"> Chlorphenamine tablets Give 4 milliGRAM(s) Oral Four times a day 	10-Feb-2016 16:47		4	3
			x	TN1
				✓ TN1

eMAR Key

1. **eMAR 24 hour view**- The eMAR is defaulted to a 24 hour view, to view medications previously administered to the patient you must change the **From** and **To** fields then click the **Update** button.
2. **Medication and Time slots** are colour coded to easily distinguish the different types of tasks and the time they are to be administered to the patient (eg, yellow is a routine scheduled dose, red is an overdue task, a trough line allows medicine to be administered within a specified period, turquoise represents a continuous drug).
3. **Completed Tasks** - display a tick and the initials of the medicines administrator in the time slot when the medicine was actually given which may be different from the time the medicine was scheduled.
4. **Tasks Not Done** - If a task is recorded as **not** being performed on the eMAR, (eg, the patient was absent from the ward at the time of the drug round etc) the time slot will display a red cross and the initials of the medicines administrator.

7 PRESCRIBING ANTIBIOTICS

- 7.1 There are additional fields to complete on the order form when ordering antibiotics, these are mandatory within the system, this applies to antibiotics being prescribed by any route.
 - 7.1.1 **Indication** – The clinical indication for antibiotics. This can be selected from the list, or a indication can be free-typed in the field
 - 7.1.2 **Prescription Type** – This is to document whether the prescription is based on trust policy, is empirical treatment, is guided by microbiologist etc.
 - 7.1.3 **Duration** – This is the intended duration of the antibiotic prescription
 - 7.1.4 NB: This is the antibiotic prescription will discontinue in the system, it is the prescribing team's responsibility to ensure this is reviewed in a timely manner to ensure patient receives the correct course of antibiotics.
- 7.2 **Injectable Antibiotic Prescribing**
 - 7.2.1 There are a specially designed set of frequencies for injectable antibiotics. There are expressed a 'Every x hours'.
 - 7.2.2 All injectable antibiotics must have 'Time Critical' start time specified to ensure timely administration of first dose. This is completed by the prescriber when placing the order.
 - 7.2.3 The first task is then scheduled at that time, and subsequent tasks are scheduled as per the 'Every x hours' frequency.

TRAINING, Lily (Mrs) Born 21-Mar-1929 (87y) Gender Female NHS No: Unknown

Address Buckingham Row, Brick Kiln Lane, ... Phone and Email Unknown MRN 10000047 Location Swinley Ward Known allergies

Order: Piperacillin with Tazobactam injection Order ID: 001BBT319

Requested By: Della Fera, Suzanne Template Name: Piperacillin with Tazobactam injection .

Messages:

Start Date 10/05/2018 **Priority/Start Time** Time Critical

Relevant Results

Problem List

Height (cm) 175.2 Weight (kg) 80 BSA 1.96 BMI 26.1

Ordered as

*** Select Dose ***

Dose 4.5

Dose

Dose

Dose

Dose

Dose

Dose UOM Route Frequency

Gram(s) every 8hrs (three times daily) Click for Medusa - Injectable Medicines Guide

Calculation Info Antibiotic Indication Prescription Type

Base Solution Infuse Over

Extra Administration Information Extra Information for Discharge Letter

Stop After (Duration) Stop Date Stop Time

Admitted on Drug Own Medication Self Administers

Repeat Drug Info View Document OK Cancel

8 ORDERING PARKINSON'S DISEASE MEDICATION

- 8.1 Patients with Parkinson's Disease must have their medication administered to a rigid time schedule that may work outside of the drug round and the order form requires you to enter the exact time for the medicine to be given.
- 8.2 All L-dopa containing products are configured specifically within the HIS system to allow for doses to be scheduled at specific times.

TRAINING, Lily (Mrs) Born 21-Mar-1929 (87y) Gender Female NHS No: Unknown

Address Buckingham Row... Phone and Email Unknown MRN 10000047 Location Swinley Ward Known allergies

Order: Co-careldopa 25mg/100mg tablets Order ID: 00188T323

Requested By: Della Fera, Suzanne Template Name: Co-careldopa 25mg/100mg tablets .

Messages:

Start Date Priority/Start Time
02-Jun-2018

Relevant Results

Problem List

Height (cm) Weight (kg) BSA BMI
175.2 80 1.96 26.1

Ordered as

Dosage Variable Dose Parkinson Meds

Dose	UOM	Route	Frequency	PRN	
First	2	Tablet(s)	Oral	at 07:00	<input type="checkbox"/>
Then	4	Tablet(s)	Oral	at 12:00	<input type="checkbox"/>
Last	2	Tablet(s)	Oral	at 17:00	<input type="checkbox"/>

Repeat Drug Info View Document OK Cancel

You must enter the Dose and Frequency for each order in the regime

9 ORDERING MEDICATION AS URGENT 'STAT' DOSE OR SINGLE 'TIMED' DOSE

- 9.1 There are 2 separate frequencies available for this type of prescribing within the HIS system.
- 9.2 The frequency 'ONCE(Urgent)' generates a single task, and schedules it immediately for 'now'. This frequency automatically changes the 'urgency' of the order to 'STAT'.
- 9.3 The frequency 'Single Dose' is used to schedule a single one-off dose. When selecting this frequency, the 'Urgency' will automatically change to 'Time Critical' – this becomes a mandatory field and the prescriber needs to specify the time and date that single dose should be scheduled.

10 PRESCRIBING WARFARIN AND ACENOCOUMORAL

- 10.1 Both Warfarin and Acenocoumoral are prescribed for inpatients using the respective ordersets within HIS. These are found by simply searching by the name of the drug.
- 10.2 The Warfarin Orderset form is displayed below
- 10.2.1 **Warfarin Prescriptions** – You can order up to 5 days of Warfarin by entering the dose for each order
- 10.2.2 **INR** – Select the INR checkbox to order the INR test
- 10.2.3 **Supporting Orders** – It is mandatory to enter the Target INR Range and the Indication for Warfarin – this will place an anticoagulant reminder on the patient's eMAR and will alert ward staff if there is no Warfarin prescription for the patient.
- 10.2.4 **History Past 10 Days** - The patient's past 10 day INR results and the associated Warfarin doses are displayed at the bottom of the order form.

Warfarin Order Set [3 orders of 8 are selected]

Relevant Results

Combined Measurements
 Height (inches) Height (cm) Weight (lb) Weight (kg) BSA
 66 167.6 121 55 1.62

Order	Date	Ordered Dose	UOM	Route	Frequency	Instructions	Info
Warfarin - 5 item(s)							
<input checked="" type="checkbox"/> Warfarin Tablets (.)	21-Jun-2016	2	milliGRAM(s)	Oral	Teatime		1
<input type="checkbox"/> Warfarin Tablets (.)	T+1		milliGRAM(s)	Oral	Teatime		
<input type="checkbox"/> Warfarin Tablets (.)	T+2		milliGRAM(s)	Oral	Teatime		
<input type="checkbox"/> Warfarin Tablets (.)	T+3		milliGRAM(s)	Oral	Teatime		
<input type="checkbox"/> Warfarin Tablets (.)	T+4		milliGRAM(s)	Oral	Teatime		

Omission Order

Order	Start Date	Instructions	Duration of omission
Omission Orders - 1 item(s)			
<input type="checkbox"/> Warfarin - Dose Omitted (.)	T	A Warfarin dose should not be given today for clinical reasons	

INRs

Order	Date to be taken	Collection Time/Type	Risk of Infection?
Laboratory - 1 item(s)			
<input checked="" type="checkbox"/> INR (.)	22-Jun-2016	Routine	No

Supporting Orders

Order	Date	Comment	Target INR Range	Indication	Info
Supporting Orders - 1 item(s)					
<input checked="" type="checkbox"/> Anticoagulant Patient (Oral) (.)		This order places a daily reminder to prescribe warfarin	2.0 - 3.0	AF	3

History Past 10 Days

INR Result	Warfarin Dose

4

10.3 The 'information order' only needs to be placed the first time warfarin is prescribed on each visit. The system will automatically 'untick' it when the order already exists.

10.4 When a clinical decision is made to omit doses of warfarin, this should be done by placing an 'omission order' via the orderset for the intended number of days. This is to avoid confusion when there is no prescription order for a particular day – it distinguish between unintentional and intentional warfarin omission.

10.5 The orderset is not used when prescribing warfarin/acenocoumoral as a discharge order, there is a separate discharge order available where the dose can be 'free-typed' for flexible prescribing.

11 GENTAMICIN PRESCRIBING

11.1 There are 3 separate ordersets to prescribe the trust's 3 different gentamicin protocols (7mg/kg, 3mg/kg and 1mg/kg BD).

11.2 The order set also contains the option to order a gentamicin level at a specified time as per the trust protocols.

11.3 The patient's height and weight pulls into the orderset at the top, to enable this information to be used for dosing.

11.4 There is a link on each of the orderset forms to the dosing table approved by the trust. This table should be used to determine the appropriate dose, The patient's actual body weight is not always the appropriate measure to use.

12 PRESCRIBING DRUGS NOT IN THE HIS DICTIONARY

- 12.1 There will always be circumstance where drug need to be prescribed that are not built within the HIS drug catalogue.
- 12.2 It is important to ensure prescribers search for drugs correctly as this item should only be used in exceptional circumstances.
- 12.3 Search for the words '**Drug**' in the catalogue.
- 12.4 There are two items, one for injectable medication and one use for all other routes.
- 12.5 When the item opens, follow the instructions on the form, free-type the drug name in the field provided, and complete all the dose, UOM, route, frequency information.
- 12.6 Pay particular care when using these items as care is needing when transcribing names and dose information into the order form.

13 DISCONTINUING MEDICATION ORDERS

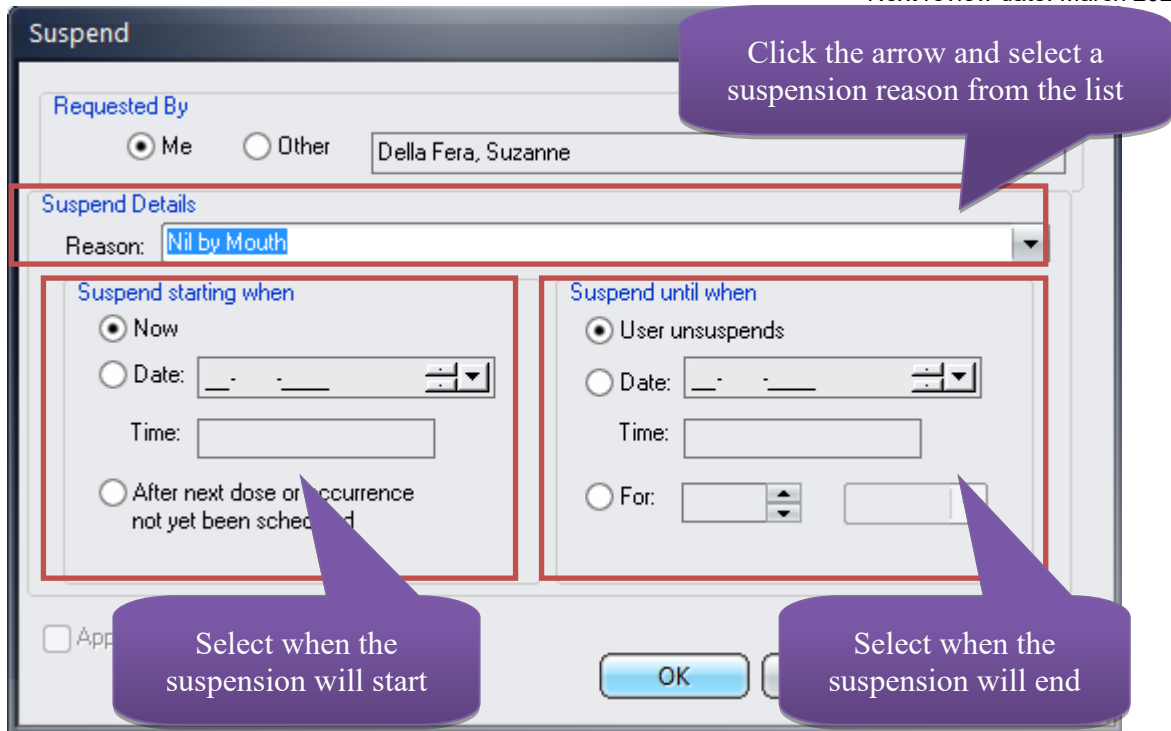
- 13.1 Medication orders are discontinued from the orders tab.
- 13.2 Orders can also be discontinued in groups by ticking the check-box next to each order name.
- 13.3 To discontinue the selected orders, right click and select 'Discontinue/cancel'.
- 13.4 Select a discontinuation reason, there are some pre-select options, but it is also possible to 'free-type' a specific bespoke reason, It is important accurate reasons are documented so audit trail is visible, and so that GPs receive accurate information on discharge.

14 MODIFICATION OF ORDERS

- 14.1 Most of the fields on medication orders cannot be amended.
- 14.2 If you wish to change dose, route, frequency etc. then the original order should be discontinued, and a new order created.
- 14.3 The Discontinue/reorder functionality within HIS should not be used.
- 14.4 Certain fields can be modified after order entering e.g Extra Admin Info.

15 SUSPENSION/UNSUSPENSION OF MEDICATION ORDERS

- 15.1 The HIS electronic system has the option to 'suspend' medication orders. This functionality can be used when there is a clinical need to temporarily 'hold' a medication.
- 15.2 Orders are suspended and unsuspended from the orders tab, and like discontinuation, it can be done on individual order, or multiple orders can be checked to suspend/unsuspend together.
- 15.3 To suspend or unsuspend right click on the selected orders and select suspend or unsuspend. There is options to decide when to start and finish the suspension if needed.



15.4 Suspended medication can be unsusponded from the orders tab

16 HUMAN RIGHTS ACT

Implications of the Human Rights Act have been taken into account in the formulation of this document and they have, where appropriate, been fully reflected in its wording.

17 ACCESSIBILITY STATEMENT

This document can be made available in a range of alternative formats e.g. large print, Braille and audio cd.

For more details, please contact the HR Department on 01942 77 3766 or email equalityanddiversity@wwl.nhs.uk