

Wye Valley NHS Trust Prescription Writing Standards

These standards should be read in conjunction with the Wye Valley NHS Trust Medicines Policy and Medicines Code. They are based on legal requirements, General Medical Council (GMC) and Trust standards for prescription writing. Unless specified these requirements apply to inpatient medication charts (IMC), outpatient and discharge prescriptions.

1. Standard 1 - General Requirements

- 1.1. Prescribers must write *clearly*, in *indelible* black pen. Each individual letter must be *legible*.
- 1.2. All prescriptions must be signed and dated by the prescriber with bleep number/ contact details and GMC No./registration No. (use of an individual name stamp is recommended).
- 1.3. Prescribers are expected to adopt a concordant approach to prescribing and keep the patient informed about proposed changes to their prescription (wherever possible).
- 1.4. Prescribers MUST ensure they are familiar with the drug they are prescribing including indication, cautions, contraindications, doses, monitoring and drug interactions. It is not acceptable to 'copy' drugs without considering their safety for the patient.
- 1.5. Nurses must be made aware of changes to inpatient prescriptions.
- 1.6. Prescribers must only prescribe for patients registered with the Trust not staff, visitors or relatives.
- 1.7. For **Controlled Drug** prescriptions, all details must be completed in the prescriber's handwriting. The following details are required:
 - **Name** and **address** of patient (an addressograph with the prescriber's initials can be used).
 - Name of drug (also refer to Standard 4)
 - Form of drug e.g. MR tablet. Check what form the preparation is available in.
 - Strength.
 - **Dose** the patient is to take, including **frequency**.
 - **Total quantity** of the preparation **or** the number of dose units **in both words and figures** (except inpatient medication charts).
 - **Prescribers signature**, registration number and contact details

Guidance

The Clinical Negligence Scheme for Trusts recommends black pen for all-medico-legal documents so that they can be photocopied.



For paper 'To Take Out' prescriptions (and out-patient prescriptions if applicable) only one item should be written on **each line** with additional prescription forms used if necessary. Any unused space on the prescription form should be deleted manually.

Explaining changes of prescriptions to patients and nursing staff prevents errors and missed doses e.g. during consultant ward rounds.

Trusts are only legally able to supply medicines to patients registered with the Trust.

When appropriate (i.e. for Electronic Discharge Summaries) the WVT Controlled Drug prescription template (available on the intranet) can be used for prescribing controlled drugs.

Examples of controlled drugs include midazolam, temazepam and tramadol.

2. Standard 2 - Patient identification

- 2.1. All prescriptions must include:
 - Patient's first name and family name.
 - Date of Birth.
 - Address.
 - Patient's NHS and/or hospital number.
 - Ward name, or name of department/speciality, and hospital site.
 - Name of consultant responsible for the patient

Guidance and Examples

Wherever possible use a patient identification/addressograph sticker.

Surname:	ANON	
First Names:	m	
DOB:14	102156	
Hospital No:		
NHS No:		

Hospital site: HCH	All and a second second
Date of Admission 17/01/17	Consultant: AARDVARK
Ward ARROW	Alle

Poor prescribing

Initials for the first name are not acceptable. Ensure first name and surname are written in full. All prescriptions should have a NHS/hospital number.

Drug charts go missing when the current ward is not written on the drug chart.

Ensure the consultant, hospital and ward are clearly recorded.

Patient's name and NHS/hospital number should be stated on each page of the drug chart. Failure to clearly identify the patient may result in the wrong drug being administered to the wrong patient.



3. Standard 3 - Patient Safety

- 3.1. All main prescriptions must state the patient's known allergies or sensitivities to medicines or state 'No known allergies 'by ticking the box. They must be dated and signed by the person identifying the allergy status.
- 3.2. For all prescriptions for children (<12 years) the age must be recorded.
- 3.3. The weight in kilograms of children under 12 years must be recorded.
- 3.4. Where the dosage of the medication is calculated using body weight or where the dose maybe weight dependent (e.g. enoxaparin), the patient's weight in kilograms must be recorded on the prescription regardless of age. Patient weights must be documented on the front of the IMC in kg and noted if the weight is Estimated or Actual. This entry must also be dated.

Weight: (kg) ______ Estimated or Actual Date: _____

- 3.5. Where the dosage of the medication is calculated using surface area this must be recorded on the prescription.
- 3.6. Medications prescribed on supplementary charts (e.g. anticoagulants, antibiotics) should also be recorded on the inpatient medication chart with reference to the supplementary chart. These charts should be attached to page 3 of the IMC.

Guidance and Examples

Allergy status is essential before:

- Prescribing a new medicine
- Administering a medicine
- Dispensing a medicine

Allergies This section	must be completed	BEFORE prescr	ibing
Date	Medicine/allergen	Type of reaction (eg. rash)	Signature
17101/17	PENICILLIN	ANAPHYKAXIS	beant
17101/17	CODENE	MINKNOWN	(rem)
Medicine _{Date}	Intolerances Medicine/food	Type of intolerance (eg. nausea)	Signature
17101/17	METFORMIN	NAUSEA	Desah.
or		A MARKET PAR	WILLIE DE LA
No known a	llergies 🗌 (Please tick)		
Signature:		Date:	

V Good prescribing practice

Where a patient is known to have a specific reaction to a medicine; record the reaction clearly, sign and date your entry.

Where the patient is thought to have an allergy or reaction to a medicine but the type of reaction is not known write 'Unknown' sign and date the entry.

Remember: Update the allergy status should any new reactions occur.

It is a legal requirement to state the age for children under 12 and good practice for all patients under 18, allowing doses to be checked.



4. Standard 4 - Drug Name

- 4.1. All drug names must be written in full (no abbreviations) using CAPITAL letters.
- 4.2. Using the International Non-Proprietary Names (rINNs) of the medicine, as recommended in the British National Formulary (BNF) except:
 - Where the BNF recommends prescribing by brand name (mainly where different proprietary brands are known to have significantly different bioavailability or release characteristics).
 - Creams and ointments.
 - Combination inhalers.
 - Combination products where no generic name exists.

Guidance and Examples

The clarity of the prescription is paramount. There is no excuse for illegible prescriptions.

$\underset{Nedicine}{Medicine}$	mN			(060	Γ		
20mg PO 17/01/17 BD								
Signature	exne	GMC N	0. 123	4507	1200			
Indication & Additional Instructions			Supply	Pharmacist Check	1400	2		
			Supply	Supply	1800			
	Medicines Reco	nciliatio	n (circle)			F		
No change	Increased Decrea dose dose		reased lose	New	2200			

X Poor prescribing

Abbreviations or chemical descriptions are not acceptable. They may be misunderstood at a later stage in the patient's care.

Most medicines should be prescribed by the generic drug name (International Non-Proprietary Names). The only exceptions are where the brand has specific characteristics and the BNF recommends patients are maintained on the same brand wherever possible. Examples include: anti-epileptics (as per MRHA advice), ciclosporin, diltiazem, mycophenolate, nifedipine, lithium, theophylline.

Medicine	0					000
ADALA	AL TA				(0600
Dose 301	ng	Route :	Start da	te Fi	CD requency	1000
Signature	+ Couhe	GMC No	. 123	45	67	1200
Indication & Ad	ditional Instruct	tions	Supply	1.5	Pharmacist Check	1400
1011 210	FINCE		Supply		Supply	1800
M	Aedicines Reco	nciliation	n (circle))		
No change	Increased dose	Decreased dose			New	2200
Medicine						
SODIU	IM UA	LPRC	TAC	E	MR	0600
Dose		Route S	start dat	e Fr	equency	1000
soor	ny	PO	HOVA		BD	10.0
Signature D	MAR ME GMC No	. 1236	156	7		1200
Indication & Ad	ditional Instruct	ions	Supply	-	Pharmacist Check	1400
			Supply		Supply	1800
P	Aedicines Recor	nciliation	(circle)			
No change	hange Increased Decreased New				2200	

Good prescribing practice The full brand name that includes the formulation characteristics ensures the patient is given the correct product.

✓ Good prescribing practice Remember to include the special formulation characteristics when prescribing, enteric coated (EC), modified release (MR), dispersible or orodispersable formulations.



						-
Medicine	EUD D	25/	31.25	1200	0600	D
Dose	-	Route	Start date	Frequency	2000	Б
Signature	tane	GMC N	D. 123	4567	1200	
	ditional Instruct	ions	Supply	Pharmacist Check	1400	Þ
CARBI	Supply	(800	D			
1	Medicines Recor	nciliatio	n (circle)		0	
No change	Increased	Dec	reased	New	R200	D

Good prescribing practice

When a brand name is used for a combination product (because there is no non-proprietary name), prescribers are encouraged to indicate the active ingredients.

To avoid confusion for some medicines such as insulin, use both the rINN and brand name.

Device: It is important to state the device required for medicines such as insulin and inhalers to ensure the patient receives the correct product.

5. Standard 5 - Dose

- 5.1. The dose must be expressed in metric units avoiding decimal points wherever possible, e.g. 1mg not 1.0mg. Numbers less than one must be preceded by '0' and not just a decimal point, e.g. 0.5ml not .5ml.
- 5.2. 'mg' and 'mL' and 'g' are the only acceptable abbreviations for metric units. The following must be written in full:
 - units (for example insulin)
 - micrograms
 - nanograms
- 5.3. Where a formulation contains a combination of active ingredients it is acceptable to use the format: 1 tablet ("1" or "T"), 5mL, 1 suppository (or similar) **only** if the strengths of the ingredients are included in the product title or where there is only one product available.

Guidance and Examples

The abbreviation **'U' is not allowed**. Prescriptions can be misinterpreted and patients given the wrong dose - always prescribe **'units'** written in full.

Medicine 1NSU	UN GO	AR	GINA	E	0600	
Bose 6U Route Start date Frequency						
Signature D	GMC NO	. 123	456	7	1200	
Indication & Additional Instruction		tions	Supply	Pharmacist Check	1400	
			Supply	Supply	18ºº	
	Medicines Recor	nciliatio	n (circle)			
No change	Increased dose	Decre	ased	New	2200	



Patients have been given the wrong dose because of prescriptions like this.



Medicine					000		
INSULIN GLARGINE							
Dose		Route Start date Frequency					
6 UN	DITS	SC	1710115	1000			
Signature	nearna	2			1200		
Bleep 123	+ GMC No	. 123	456=	F	12		
Indication & Ad	ditional Instruc	tions	Supply	Pharmacist	1/100		
-1ANJ	TUS				1-+		
2	OLOSTA	tR	Supply	Supply	1800		
	Medicines Reco	nciliatio	n (circle)				
Nochange	Increased	Decreased		New	2200		
No change	dose	d	ose	New	122		

Beware, some oral liquid medicines (including unlicensed preparations) come in **different strengths**. Prescribe doses in mg rather than mL.

Medicine					0.000
FURO	SEMID	EL	QU	(D)	(0600
Dose SM	L,	Route S	tart date 7101/	Frequency	1000
Signature PX Bleep 1234	GMC No	. 1231	+56	7	1200
Indication & Ade	ditional Instruct	ions	Supply	Pharmacist Check	1400
			Supply	Supply	1800
N	Nedicines Recor	nciliation	(circle)		
No change	Increased dose	Decrea dos	e sed	New	2200
					Int
FUROS	SEMIDE	E 40	DUI	D	0600
Dose 40	ma	Route 9	art dat	1000	
Signature Bleep 123	Herenbe 4 GM	IC No. \	2345	567	1200
Indication & Ac	dditional Instruc	tions	Supply	Pharmacist Check	1400
4000	guisn	IL	Supply	Supply	1800
	Medicines Reco	nciliation	(circle)		
No change	Increased	Decre	ased	New	2200

* Poor prescribing

✓ Good prescribing practice

Furosemide liquid comes in several strengths, 5mg in 5mL, 40mg in 5mL and 50mg in 5mL. You cannot tell from this prescription what dose the patient should have.



Reducing dose regimens should be prescribed clearly indicating when the dose changes. If the frequency is to change this can be indicated on the administration record.

Medicine	
Dose Route Start date Frequency 200 Mg PO 17/01 AF TDS	10 ⁰⁰
Signature DHCXAD Bleep 1234 GMC No. 1234567	
Indication & Additional Instructions Supply Pharmacist TDS ONE WEEK	1400
BD ONE WEEK Supply Supply OD ONE WEEK	18 ⁰⁰
Medicines Reconciliation (circle)	
No change Increased dose Oecreased New	

If the dose changes this will need to be written on a new prescription section.



PEONISOLONE	0600	:uD						<				_	,
Dose 30M01 PO 17101/17 OD	1000	1								/			
Signature PREAPDR Bleep 1234 GMC No. 1234537	12ºº								-			-	1
Indication & Additional Instructions Supply Pharmacist Check Supply Pharmacist	1400						-		/				
Supply Supply	1800										-	-	
No change Increased dose New	2200									1			
Medicine	0.000			N		V	1	1/		1			
PREDNISOLONE	Of Cr	a X	X	Х	X	X	X	X					
Dose Route Start date Frequency	1000												
Signature PPE DUD Bleep 1234 GMC No. 1734557	1200												
Indication & Additional Instructions	14ºº												
LONG-TORM Supply Supply	1800												
Medicines Reconciliation (circle) No change Increased dose Decreased dose New	2200												

Limited courses of treatment should have a bar written across the administration section to indicate the end of a course of treatment.

Withholding medication: a cross can be used in the administration box(es) but ensure the reason and date for review is stated. Ensure this information is also documented in the medical notes.

Medicine SIMVASTATIN	06 ⁶⁰	T
Dose Route Start date Frequency PO 17101/17 ON	10 ⁰⁰	
Signature DPCANP2 Bleep 1234 GMC No. 1234567	12°°	
Indication & Additional Instructions Supply Pharmacist Check Check	1400	
TAKING CLARITHROMUCIN Supply Supply	1800	T
Medicines Reconciliation (circle) No change Increased dose Decreased dose New	$\underbrace{\mathbb{Z}^{2n}} X \times \times$	T

6. Standard 6 - Route

- 6.1. Only the following abbreviations are to be used to describe the route of administration:
 - IV intravenous SC - subcutaneous IM - intramuscular NEB - nebulised PO - oral TOP - topical PV - vaginal
- PV vaginally JEJ - via jejunostomy tube INH - inhalation PEG - via percutaneous endoscopic gastrostomy tube NG - nasogastric PR - rectal
- 6.2. All other routes of administration must be written out in full, e.g. intrathecal, epidural, sublingual, buccal.
- 6.3. Prescribers must specify the precise location or area to be covered for topical drugs.



Guidance and Examples

Regular medicines should only have <u>one route</u> of administration on the prescription.

Medicine PARA	CETAM	NOL		(0600)					
Dose Route Start date Frequency											
Signature PACATE Bleep 1234 GMC No. 1234567											
Indication & A	dditional Instruc	Supply	Pharmacist Check	1400							
			Supply	Supply	1800)					
	Medicines Reco	nciliatio	n (circle)		6	-					
No change	Increased dose	Decre	eased se	New	2200)					

Law a		_		-		_	_		¥	_
Med	icine 10RPF	111	VE							
Dose	IOm	ÿ))	R	oute	Start	dat	e I	Frequency	1
Signa	ature Dre	SMC	NO 123	4	567	N	Aax o	dose	e in 24 hrs	0
Spec	ial instructio	ons/c	directions			SI	ypply		Pharmacy Check	
						St	ipply		Supply	
	ſ	Med	icines Reco	ncil	iation	(cire	(e)			-
No c	hange	Ir	dose		Decre do:	ased			New	
	Medicine	~		-						Т
	ma	DR	PHIN	it						
	Dose	-	0.0		Route	e Sta	rt da	te	Frequency	
	10)-	20m	C	DO	17	-101	10	7-11	가
	Signature	m	print	1	1-		Max	dor	4 T	-
	Bleen 122	100	SMCNO	K	2115	17	IVIAX	17	Oma	
	bleep 12 2	24		6	543	67	Supply	1 4	Pharmacia	+
	Special instr	ructio	ons/direction	S			Sabbil		Check	ľ
							Supply		Supply	1
7										ľ
1		r	Viedicines Re	ecor	ciliati	on (ci	rcle)			_
(No change		dose	8	Dec	rease	a	(New)	
E	THER	10	DRR							
1	Medicine									Т
4	mo	RF	HINE							
	Dose 1	0	ma	m	BC	Sta	rt da 701	te NR	Frequency	ł
	Signature	m	address	2	1	1.	Max	dos	e in 24 hrs	-
	Bleep 12	24	GMC No. 12	23	456	7	120			1
_	Special instr	uctio	ons/direction	s			Supply		Pharmady Check	1
0							Supply		Supply	-
		P	Medicines Re	con	ciliatio	on (ci	rcle)		1	-
	No change	-	Increased		Dec	rease	d	(New	-
			18/03/2007			14 (200 (D))	_	-		_

X Poor prescribing

Regular medicines need to state one route. If the patient's requirements change the prescription should be re-written. (In some cases paracetamol IS written as shown here to avoid a patient being overdosed. If this is the case the route administered MUST be documented by the person administering the medication. <u>CAUTION for IV route if patient is</u> <u>less than 50kg this "regular" dose would be</u> <u>an OVER DOSE)</u>

X Poor prescribing

The dose of morphine is different when given orally to when given subcutaneously or intravenously.

Good prescribing practice

Be clear on the intention of the prescription e.g. so duplicate doses are not given.

7. Standard 7 - Frequency and Times of Administration

- 7.1. As required prescriptions must always state minimum dose interval and maximum dose.
- 7.2. In-patient Medication Charts: The dosing time(s) should be marked on the pre-printed column by circling the time. If the pre-printed time is not appropriate it may be crossed



out and more suitable time written in the adjacent column. For Once only medicines and pre-medications 24-hour clock format must be used.

- 7.3. Discharge prescriptions must have directions written out in full. Abbreviations are not to be used.
- 7.4. Outpatient prescriptions should have directions preferably in English without abbreviation. Latin abbreviations listed in the back of the BNF may be used where there is limited space.

Guidance and Examples

As required prescriptions - it is good practice to state the indication for any as required prescriptions.

PARAC	ETAM	OL			
Dose	7	Route PO	Start d	ate ル子	
Signature D Bleep D34	Ma	x dq	se in 24 hrs		
Special instruction	Supp	ly	Check		
PAT	Supp	ly	Supply		
	Medicines Reco	nciliatio	n (circle)	
No change	Increased	Decr	eased		New

Good prescribing practice

Stating minimum dose frequency and maximum dose on 'when required' prescriptions reduces the likelihood of a patient receiving an inappropriate dose.

Unusual time courses. It should be clear when a drug should be given by clearly marking the administration boxes as well as writing additional instructions.

METHOTREXATE															
Dose Route Start date Freque 15Mg PO HAM7 WE	A 10°	D	Х	X		X	X	X	X	X	X	X	X	X	X
Signature PROSPER, RHEUM. CONSULTA Bleep D2.4 GMC NO. 1234507	57 120														
Indication & Additional Instructions	acist 14 ⁰														
THURSDAYS Supply Supp	18º														
Medicines Reconciliation (circle)					-	-		-				 		-	-
No change Increased Decreased New	220														

✓ Good prescribing practice

Where appropriate write the day of the week of administration. Cross through the administration boxes on the chart to emphasise that the dose must only be administered on certain days.

NB. Methotrexate must only be prescribed by consultant, registrar or clinical nurse specialist

When a drug is only administered monthly or three monthly, it is good practice to record when the last dose was given. If a dose is to be prescribed during an inpatient stay this can prescribed on the Once only medicines section.



8. Standard 8 - Alteration and Cancellations

- 8.1. Cancellations MUST always be signed and dated. For inpatient prescriptions use the box provided on the medication chart. Draw a diagonal line across the prescription details and the administration boxes.
- 8.2. On In-patient Medication Charts (IMC): Indicate whether the drug prescribed was taken on admission 'no change', a dose change or new. Any changes to medication doses must be documented in the discharge prescription.
- 8.3. In-patient Medication Charts that become unclear due to multiple deletions and revisions must be rewritten in full. When rewriting always state the date the drug was started NOT the date the medication chart was rewritten.
- 8.4. On the In-patient Medication Chart, when the dose, preparation or route of a drug requires alteration the existing prescription must be cancelled and a new prescription written.

Guidance and Examples

Medicine					000				
AMUC	SDIPIN	Æ			06-				
Dose Route Start date Frequency PO FIG/17 OD									
Signature (C	HESENDO	AC No)	7245	7.7	1200				
Indication & Additional Instructions Supply Pharmacist Check									
			Supply	Supply	1800				
No change	Medicines Reco Increased dose	Decre Decre do	2200						
Medicine	2000				0600				
Dose 2.8mg	Sma	Route S		Frequency	1000				
Signature 72 Bleep 12-34	Beant	C No. \	224	567	1200				
Indication & Add	ditional Instruc	tions	Supply	Pharmacist Check	1400				
			Supply	Supply	1800				
N	ledicines Reco	nciliation	(circle)						
	Increased Decreased New				2200				

Good prescribing practice

Circling the 'no change' box indicates that the patient was taking the medication when they were admitted.

X Poor prescribing

It is not clear when the dose was changed. Dose changes should be prescribed by drawing a line through the prescription and rewriting a new prescription with the new dose.

PKENUTOIN					Loz V2/		
Dose Route Start date Frequency V HTQ/H TDS.				1000		CHANG	EDID
Signature December Bleep 1234 GMC No. 1234567					21 121	pres	inde
Indication & Additional Instructions			(1400)	The The			
	Medicines Reconcilia	tion (circle)	Supply	18ºº			
No change	Increased De dose De	creased dose	New	220	Les 12		



Medicine PHON	NIOTUL	0600	Τ					
Dose 300	ma.	Route !	Start dat	Frequency	1000			
Signature P Bleep 123	Pertube GM	1200						
Indication & Additional Instructions			Supply	Pharmacist Check	1400			
			Supply	Supply	1800			
		11						
No change	Increased dose	Decre	ased	(New)	2200	X	X	

Good prescribing practice

An example that clearly records when the patient's intravenous phenytoin was changed to the oral route.

Charts that are no longer in use must be crossed though, signed and dated ensuring the information on the chart is not obscured. Cancelled charts must be retained with the medical notes.

Rewritten drug charts: the date the drug was first prescribed (either the date of admission for drugs taken by the patient on admission or the date started of any new drugs) must be used (not the date of the rewrite). This information is particularly important for antibiotic course lengths.

Good practice point: if needed ensure medication charts are rewritten to allow continuation of administration over weekends/discharges to off-site localities in. This reduces the risk of administration error/missed doses and reduces the workload for on-call teams.

9. Antibiotic prescribing

- 9.1. Ensure the antibiotic is prescribed on the correct page of the IMC and that the Infection Severity Score, indication and duration of therapy is recorded:
 - Short Term and Initial IV Antimicrobial Therapy (page 4) MUST be reviewed on DAY 3 including completion of the 'Day 3 Review' section
 - **ORAL** or Long Term IV Antimicrobial Therapy (page 5)
- 9.2. ALWAYS confirm and check allergy status before prescribing antibiotics.
- 9.3. Ensure the allergy status is documented on the IMC and in the patient's notes and that the patient has an allergy wrist band in situ. If there is no allergy wrist band in situ immediately inform the nurse allocated to that patient's care for the shift.



Guidance and Examples

For Short Term and Initial IV antibiotics, each prescription is stand alone and calendar dates will not apply to the page as a whole.

			Day 1	Day 2	Day 3			
			Date	Date	Date 19/01			
Medicine	0600		1/10	42/12	42/12	DAY 3 Review	w 1	
Dose Route Start date Frequency		1	JWE		10/000	Switch to PO (prescribe)		1
Indication: CIOP Pharmacist Check	1200					Continue IV	V	
	(1400)		12/	421.0	42/10	Stop		
Duration 3 DAYS	1800		1002	jue	.1002	Signature & GMC No. MCNM2	Date	
Bleep 1234 GMC No. 1234567	(200)	42/wz	42/wZ	42/wz	1234527	19701-	
		E	Day 1 Date	Day 2 Date 2-0/01	Day 3 Date		-	
Medicine CLAPITUP O DOVICIAL	0600			44/10		DAY 3 Review	w	
Dose Route Start date Frequency)		1002		Switch to PO (prescribe)		
Indication [#]	1200					Continue IV		
ISS A or B or C Micro Advice Supply						Stop		-
						Signature & GMC No.	Date	
Bleep 1234 GMC No. 123457	2200		ywe					

Penicillin allergy - patients with a history of anaphylaxis **MUST NOT** receive a penicillin, cephalosporin or other beta-lactam antibiotic

To reduce the incidence of c difficile consider withholding PPIs wherever clinically possible.

Refer to the Trust's Medicines related Guideline for the assessment of penicillin allergy.

Useful prescribing guidance including specific drugs

For further information refer to the BNF. For more detailed information about a drugs' indication, cautions, contraindications and side effects refer to its summary of product characteristics (SPC) via the eMC. Both references can be accessed through links on the intranet homepage. WVT Medicine Related Guidelines are also available as a quick link on the homepage or the Medicines Optimisation intranet page.

Drugs in renal impairment

- Problems associated with prescribing drugs in patients with reduced renal function include:
 - o reduced renal excretion of a drug or its metabolites may cause toxicity
 - sensitivity to some drugs is increased even if elimination is unimpaired
 - o many side-effects are tolerated poorly by patients with renal impairment
 - \circ some drugs are not effective when renal function is reduced



The information on dosage adjustment in the BNF is expressed in terms of eGFR, rather than creatinine clearance, for most drugs. Although the two measures of renal function are not interchangeable, in practice, for most drugs and for most patients (over 18 years) of average build and height, eGFR (MDRD 'formula') can be used to determine dosage adjustments in place of creatinine clearance.

Toxic drugs

For potentially toxic drugs with a small safety margin, creatinine clearance (calculated from the Cockcroft and Gault formula) should be used to adjust drug dosages in addition to plasma-drug concentration and clinical response.

Patients at extremes of weight

In patients at both extremes of weight (BMI of less than 18.5 kg/m² or greater than 30 kg/m²) the absolute glomerular filtration rate or creatinine clearance (calculated from the Cockcroft and Gault formula) should be used to adjust drug dosages (refer to BNF for more information).

Drugs in hepatic impairment

- Liver disease may alter response to drugs in several ways:
 - Impaired drug metabolism
 - Hypoproteinaemia
 - Reduced clotting
 - Hepatic encephalopathy
 - Fluid overload
 - Hepatotoxic drugs

Refer to the relevant drug monograph in the BNF for prescribing advice in hepatic or renal impairment.

Drug interactions

The severity of a drug reaction interaction varies from one patient to another. In the BNF potentially serious drug interactions are either shown in bold against a pink background (online version) or by the symbol •; concomitant administration of the drugs involved should be avoided.

Adverse drug reactions - <u>yellowcard.mhra.gov.uk</u>

- Newly licensed drugs identified by a black triangle symbol ▼ all suspected reactions should be reported.
- Established drugs all serious suspected reactions including those that are fatal, lifethreatening, disabling, incapacitating, or which result in or prolong hospitalisation; they should be reported even if the effect is well recognised.



Unlicensed medicines

Ensure patients are informed if prescribing an unlicensed medicine or prescribing 'off-label'. Refer to The WVT Procedure for the Use of Unlicensed Medicines and GMC prescribing guidance for further information.

Specific drugs

Analgesics

- Take care when prescribing paracetamol containing medicines e.g. co-codamol, codydramol, not to exceed the maximum dose of paracetamol.
- Paracetamol infusion dose should be reduced to a maximum of 3g/day if patient less than 50kg.
- Caution with the use of effervescent preparations due to high sodium content.

Anticoagulants

- Warfarin, acenocoumarol and phenindione must be prescribed on the WVT Anticoagulant chart.
 - i. Always document the indication, target INR and interacting drugs.
 - ii. It is also useful to document the patients usual dose.
 - iii. Doses should be prescribed to be administered at 14:00 to ensure monitoring and dosing is actioned by the patients' consultant team (i.e. not out of hours)
 - iv. Cross reference by prescribing the anticoagulant on the Regular medication section of the In-Patient Medication Chart.
 - v. Ensure the additional chart is attached to page 3 of the inpatient medication chart
- Direct Oral Anticoagulants (DOACs) dabigatran, apixaban, edoxaban, rivaroxaban. Before prescribing always check:
 - i. There is no co-prescription with enoxaparin (including prophylactic doses)
 - ii. Indication (may need to consider age and weight)
 - iii. Renal function
 - iv. Drug interactions

Cytotoxics and immunosuppressants

- Cytotoxics must be prescribed by a specialist or as detailed in a written protocol or treatment plan.
- Great care must be taken when prescribing immunosuppressants consider:
 - i. Infection risk
 - ii. Potential adverse drug reactions/signs of toxicity
 - iii. Dosing in hepatic or renal impairment
 - iv. Drug interactions
 - v. Monitoring
- <u>Corticosteroids</u>
 - i. Consider a temporary increase in dose in any significant intercurrent illness, trauma, or surgical procedure.



- ii. Avoid abrupt withdrawal in patients at risk of adrenal suppression.
- <u>Methotrexate</u> refer to the WVT Safe Use of Methotrexate Procedure Once a Week Dosing

Insulin

- Confirm insulin product including brand and device and dose with patient (whenever possible) before prescribing
- Units(s) must be written in full and not abbreviated.
- Never undertake or advise withdrawing insulin from pen devices
- Refer to the WVT Safer insulin Use procedure

Medical Gases

- All medical gases must be prescribed. Ensure the following information is Included:
 - i. Name of gas
 - ii. Delivery device
 - iii. Percentage/flow rate/target SpO₂
 - iv. Indication for administration

References

General Medical Council. <u>Good Practice in Prescribing and Managing Medicines and</u> <u>Devices</u> London: General Medical Council 2013

Joint Formulary Committee. British National Formulary (online) London: BMJ Group and Pharmaceutical Press <u>http://www.medicinescomplete.com</u> [Accessed on 03/01/17]