Imperial College London

School of Medicine

Clinical Prescribing Teaching
2012-2013

Student Pack

Teaching Session 1: Plan

Learning Objectives

By the end of this session, participants should be able to:

1. Know some of the common abbreviations used in prescribing
2. Prescribe medication on a drug chart
3. Be aware of some common problems that occur when medication is prescribed for hospital inpatients
4. To understand the Check and Correct tool when clerking patients on the wards

The Pharmacist leading the session will give you each a drug chart from this hospital, and discuss the issues above. This pack contains other resources you will need for the session. Printouts will be given as required at the session.

Common Abbreviations Used in Prescribing

What do the following abbreviations mean?

OD

BD

TDS

QDS

i

ii

iii

po

pr

pv

iv

sc

im

inh

top

prn

stat

What is the difference between a brand and generic drug?

Guided Tour of the Drug Chart

How to Write a Prescription

Examples of Correctly Prescribed Medication

Surname: _____ T _____

First Names: _____ M _____

Date of Birth: _____ `Insert DOB` _____

Hospital Number: _____ `Insert Hospital number` _____

NHS Number: _____

Date of Admission	Weight (kg)	Height (cm)	BSA (m²)
17|8|12	65kg	156	

Regular Prescriptions

Medicine (approved name): ASPIRIN

Dose	Route	Start Date	Stop Date
75mg	PO	17|8	

Signature/Bleep: ⊖ 1234

Pharmacy:

Patient Medicine on admission ✓ | New

Additional Instructions

Time	17/8								
08									
12									
18									
22									

Medicine (approved name): RAMIPRIL

Dose	Route	Start Date	Stop Date
10mg	PO	17|8	

Signature/Bleep: ⊖ 1234

Pharmacy:

Patient Medicine on admission ✓ | New

Additional Instructions

Time									
08									
12									
18									
22									

Medicine (approved name): ALFACALCIDOL

Dose	Route	Start Date	Stop Date
2 micrograms	PO	17|8	

Signature/Bleep: ⊖ 1234

Additional Instructions: Mondays Wednesdays & Fridays

Pharmacy:

Patient Medicine on admission ✓ | New

Time									
08	✕ ✕		✕	✕		✕ ✕		✕	✕
12									
18									
22									

Medicine (approved name): MESALAZINE MR

Dose	Route	Start Date	Stop Date
1g	PO	17|8	

Signature/Bleep: ⊖ 1234

Additional Instructions: Pentasa®

Pharmacy:

Patient Medicine on admission ✓ | New

Time									
08									
12									
18									
22									

Medicine (approved name): CEFALEXIN

Dose	Route	Start Date	Stop Date
500mg	PO	17|8	

Signature/Bleep: ⊖ 1234

Additional Instructions: UTI 7/7

Pharmacy:

Patient Medicine on admission ✓ | New

Time	Day ①								
08									
12									
18									
20									

Medicine (approved name):

Dose	Route	Start Date	Stop Date

Signature/Bleep:

Additional Instructions

Pharmacy:

Patient Medicine on admission | New

Time									
08									
12									
18									
22									

Codes:
1. Patient away from ward
2. Patient could not receive medicine (specify reason on back)
3. On instruction of doctor
4. Medicines not available (specify reason on back)
5. Not required by patient
6. Patient refused
7. Self administration
8. Other

The BNF

The British National Formulary (BNF) aims to provide up to date information about the use of medicines. The BNF contains key information of the selection, prescribing, dispensing and administration of medicines. Medicines generally prescribed in the UK are included. There is very little information in the BNF regarding medicines that can be purchased by the public.

Structure of the BNF

The Table of Contents shows that information in the BNF is divided into:

- The Preface and General information which includes *How the BNF is Constructed* and *Changes for this Edition*.
- *Guidance on Prescribing*, which provides practical information on many aspects of prescribing from writing a prescription to prescribing in palliative care.
- *Emergency Treatment of Poisoning*, which provides an overview on the management of acute poisoning.
- *Classified notes on clinical conditions, drugs, and preparations*, these notes are divided into 15 chapters, each of which is related to a particular system of the body (e.g. chapter 2, Cardiovascular System) or to an aspect of medical care (e.g. chapter 5, Infections). Each chapter is further divided into classified sections. Each section usually begins with *prescribing notes* followed by relevant drug *monographs* and *preparations*.
- Drugs are classified in a section according to their pharmacology and therapeutic use.
- *Appendices and Indices* includes five appendices (providing information on drug interactions, Borderline substances, cautionary and advisory labels for dispensed medicines, intravenous additives, and wound management), the Dental Practitioners' Formulary, the Nurse Prescribers' Formulary, Non-medical Prescribing, Index of Manufacturers, and an Alphabetical Index. The information in the Appendices should be used in conjunction with relevant information in the chapters.

How to Use the BNF

DRUG NAME

Indications details of clinical uses

Cautions details of precautions required and also any monitoring required
  Counselling Verbal explanation to the patient of specific details of the drug treatment (e.g. posture when taking a medicine)

Contra-indications circumstances when a drug should be avoided

Hepatic impairment advice on the use of a drug in hepatic impairment

Renal impairment advice on the use of a drug in renal impairment

Pregnancy advice on the use of a drug during pregnancy

Breast-feeding advice on the use of a drug during breast-feeding

Side-effects very common (greater than 1 in 10) and common (1 in 100 to 1 in 10); *less commonly* (1 in 1000 to 1 in 100); *rarely* (1 in 10 000 to 1 in 1000); *very rarely* (less than 1 in 10 000); also reported, frequency not known

Dose

- Dose and frequency of administration (max. dose); CHILD and ELDERLY details of dose for specific age group

- By alternative route, dose and frequency

[1] **Approved Name** (Non-proprietary)
  Pharmaceutical form, sugar-free, active ingredient mg/mL, net price, pack size = basic NHS price. Label: (as in Appendix 3)

1. Exceptions to the prescribing status are indicated by a note or footnote.

Proprietary Name (Manufacturer)
  Pharmaceutical form, colour, coating, active ingredient and amount in dosage form, net price, pack size = basic NHS price. Label: (as in Appendix 3)
  Excipients include clinically important excipients
  Electrolytes clinically significant quantities of electrolytes
  Note Specific notes about the product e.g. handling

Drugs

Drugs appear under pharmacopoeial or other non-proprietary titles. When there is an *appropriate current monograph* (Medicines Act 1968, Section 65) preference is given to a name at the head of that monograph; otherwise a British Approved Name (BAN), if available, is used.

The symbol is used to denote those preparations that are considered by the Joint Formulary Committee to be less suitable for prescribing. Although such preparations may not be considered as drugs of first choice, their use may be justifiable in certain circumstances.

Prescription-only medicines [PoM]

This symbol has been placed against those preparations that are available only on a prescription issued by an appropriate practitioner. For more detailed information see *Medicines, Ethics and Practice*, London, Pharmaceutical Press (always consult latest edition).

The symbols [CD2] [CD3] [CD4-1] [CD4-2] indicate that the preparations are subject to the prescription requirements of the Misuse of Drugs Act. For regulations governing prescriptions for such preparations see Controlled Drugs and Drug Dependence.

Preparations not available for NHS prescription [NHS]

This symbol has been placed against those preparations included in the BNF that are not prescribable under the NHS. Those prescribable only for specific disorders have a footnote specifying the condition(s) for which the preparation remains available. Some preparations which are not *prescribable* by brand name under the NHS may nevertheless be *dispensed* using the brand name providing that the prescription shows an appropriate non-proprietary name.

Preparations

Preparations are included under a non-proprietary title, if they are marketed under such a title, if they are not otherwise prescribable under the NHS, or if they may be prepared extemporaneously.

Prices

Prices have been calculated from the basic cost used in pricing NHS prescriptions, see also Prices in the BNF for details.

Drug Chart Writing Exercise

Mrs T was admitted via A&E and has now arrived on the ward for which you are the FY 1. The relevant section of her initial medical clerking is given below.

You may use the BNF provided.

Mrs M.T., 64 yr old lady, admitted last night via A&E with ? Chest infection

PMH:
> *Angina*
> *Osteoporosis*
> *Recurrent UTIs*

DH:
> *Simvastatin 40mg once daily*
> *Alendronate 70mg once weekly*
> *IMDUR 60mg once daily*
> *Iron tablets once daily*
> *Paracetamol 1g four hourly as needed for pain*
> *Novorapid 5units TDS*
> *Glargine 20units at night*
> *Trimethoprim 100mg ON*

Allergies:
> *Penicillin*

1. Please prescribe Mrs T's usual medication on the drug chart given.

2. Mrs T is a bit dehydrated. The registrar wants you to prescribe 1 litre of normal saline with some potassium intravenously and VTE prophylaxis

3. Later that morning, the consultant recommends adding Augmentin for the treatment of her chest infection. Add this to the drug chart.

4. A week later, Mrs T develops problems with swallowing, and can only swallow liquid medication. What implications does this have?

Using the Check and Correct prescribing checklist – guidance for medical students

Background

The "check and correct" prescribing checklist[1] was originally developed to aid focus on prescribing during consultant-led ward rounds. However we believe it will also be useful for medical students to complete as part of their clinical placements to introduce the concepts of safe prescribing and to integrate the pharmacy-led teaching sessions with practice.

Learning objectives

Following completion of this exercise, medical students should be able to:
- List some key standards for safe prescribing
- Comment on the extent to which prescribing on their placement ward(s) meets these standards

What students need to do

- Obtain / print off a copy of the check and correct checklist
- Complete the tool for 10-15 patients seen on the ward(s) during their clinical attachment. Note that the shaded boxes are unlikely to be relevant on wards where there is electronic prescribing for inpatients
- Add up the total number of boxes with an X for each patient.   Are there any patients with no problems at all?
- Come back to the second pharmacy teaching session prepared to discuss what you found, and what you learned from this process.

Reference
1. Caldwell G. Real Time "Check And Correct" Of Drug Charts On Ward Rounds - A Process For Improving Doctors' Habits In Inpatient Prescribing. Pharmacy Management 2010; 26:3-9.

Imperial College London

School of Medicine

Safe Prescribing Standards–Check and Correct–Report all deficiencies to the relevant team and ensure chart is up to standard

Date ..../..../.....	Person completing form		Ward or Unit	

Safe Prescribing Standard	Patient:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Initials:																
Patient name, DOB, hospital number, consultant, ward, all on front page	√ Yes X Not all																
All items are readily legible in black, clear and unambiguous – could the patient easily read and check the drug names?	√ Yes X Not all																
Drug allergy box completed?	√ Yes X No																
If any drugs prescribed in units other than "mg" or "g", is the unit written in longhand? E.g. micrograms, (not mcg), units (not u) for insulin and dalteparin, tinzaparin etc?	√ Yes X Not all ---n/a																
For all ANTI-INFECTIVE AGENTS both a duration and indication are written?	√ Yes X Not all ---n/a																
All prescribed drug doses administered? (If not, why not? Was doctor informed? Should drug be stopped?)	√ Yes X No																
Use of approved generic names * e.g. dalteparin not Fragmin simvastatin not Zocor co-amoxiclav not Augmentin	√ Yes X No																
PRN drugs all have dose and where appropriate a maximum frequency e.g. morphine, paracetamol?	√ Yes X Not all -- n/a																
Has the doctor signed and dated each prescription	√ Yes X No																
Venous thromboprophylaxis data fully completed and most appropriate drug prescribed?	√ Yes X No																
Perfection?	√ Yes X No																
Count N° of Boxes with an "X"																	

Comments	

* You may need help from a Pharmacist on generic names
Shaded boxes not relevant where there is electronic prescribing   When completed, print another copy!

Clinical Prescribing Teaching

<u>Compulsory</u> Attendance and Feedback Form Session 1

Name:
Site:
Number of students in Group:

<u>Please complete this form at the end of the session</u> **and hand it to the Pharmacist before you leave. They will give it to the teaching co-ordinators.**

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Did the session achieve the stated learning outcomes?   Yes / No

Was there enough opportunity for questions?   Yes / No

Was the length of training session   Too long / too short / just right?

What is your evaluation of the session in relation to:

Clearly audible	☐	☐	☐	☐	Mumbled
Explanations clear & understandable	☐	☐	☐	☐	Incomprehensible
Lively/interesting presentations	☐	☐	☐	☐	Monotonous
Stressed important material	☐	☐	☐	☐	All material seemed the same
I have learned a lot	☐	☐	☐	☐	I have learned nothing
Teaching methods appropriate	☐	☐	☐	☐	Teaching methods not appropriate
The material will improve my practice	☐	☐	☐	☐	My practice will not improve

How would you rate the overall quality (including organisation) of the session out of 10: ____

Do you feel this session could be improved?

What else could be included in the session that you feel would be relevant?

Is there anything you would like to add?

All feedback is valuable, thank you very much