Medication History Taking

Adapted from Medication Services Queensland

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SESSION OBJECTIVES

- Be able to determine what patients *actually* take prior to admission
- Learn about common ‘error traps’ in history taking
- Limitations of different information sources
- Assessment of adherence
- Introduction to reconciliation

Why do you think medication histories are important?

Why is it important?

- 10%-67% of medication histories have at least one error[1]
- 1 in 2 histories had up to 5 errors or anomalies[2]
- 1/3 of these errors have the potential to cause patient harm[3]

1. Tam V. Knowles S, Cornish P et al. Frequency, type and clinical importance of medication history errors at admission to hospital: a systematic review. CMAJ 2005;173(5):510-5

2. Stowasser D. 2002.PhD

3. Cornish P. Knowles S, Marchesano R et al. Unintended Medication Discrepancies at the Time of Hospital Admission Arch Intern Med. 2005;165:424-429.

How do you obtain a good Medication History

General points for good patient interview about medicines

Elements for a productive patient interview

- Clear purpose
- Actively listen to the patient
- Ask open questions

Benefits

- Builds rapport with patient
- Builds relationship
- Identifies patients' needs
- Extract full medication history
- Explores the patient's perspective of illness and its treatment

Obtaining an accurate Medication History: What does it involve?

- **Structured process**
  - Review of sources of patient information
  - Patient/carer medication history interview
  - Organisation of patient data
- **Confirmation**
  - Ensuring completeness and accuracy
  - Not relying on a single source

MEDICATION ACTION PLAN (MAP)

(Affix identification label here)

Queensland Government

Medication Action Plan (MAP)

Ward / Unit:

URN:

Family name:

Given name(s):

Address:

Date of birth: Sex: ☐ M ☐ F ☐ I

First Clinician to Print Patient Name and Check Label Correct:

Medication changes during admission

Comments (e.g. administration, liaison, monitoring and supply notes)

Medication discharge checklist

- ☐ Own medicines checked / re-labelled / returned
- ☐ Permission granted for destruction of drugs no longer prescribed (if applicable)
- ☐ Prescription reconciled on discharge
- ☐ Prescription given to patient (if applicable)
- ☐ Medication supplied
- ☐ Consumer Medicine Information supplied
- ☐ Discharge Medication Record (DMR) given / sent to:
  - ☐ Patient
  - ☐ Pharmacy
  - ☐ General practitioner
  - ☐ Other:

Referral for Home Medicines Review (consider referral for Home Medicines Review if one or more options are ticked)

- ☐ Difficulty managing medicines
- ☐ Taking more than 12 doses per day
- ☐ Suspected non-compliance
- ☐ Significant changes to medication regimen during admission
- ☐ Inability to manage drug related therapeutic devices
- ☐ Medication requiring therapeutic monitoring
- ☐ Taking more than 5 medicines
- ☐ Other:

KEEP WITH ACTIVE MEDICATION CHART - DO NOT REMOVE

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Queensland Government

Medication Action Plan (MAP)

Facility:

Ward / Unit:

Date of admission: / /

Consultant:

Issues / actions

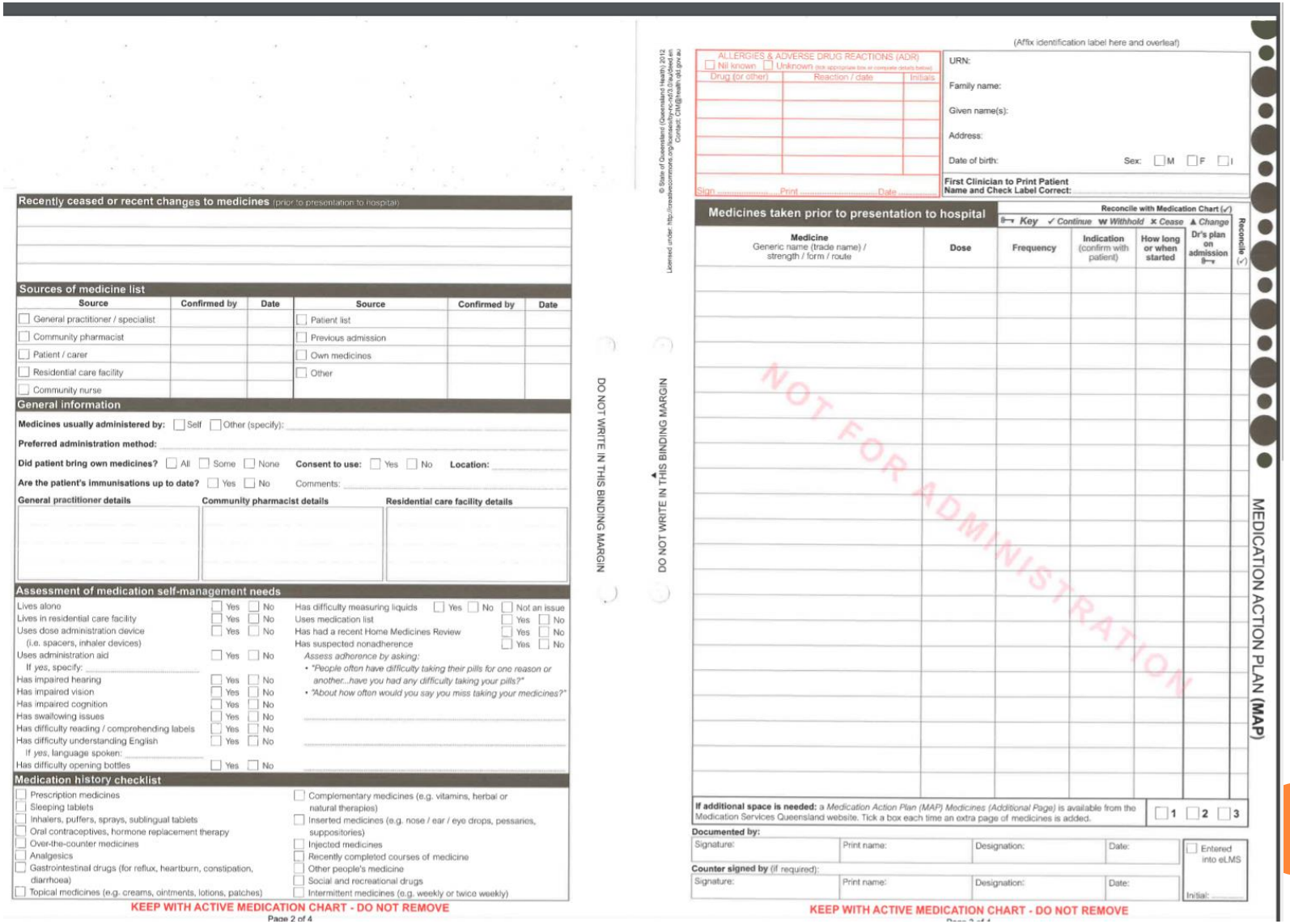
Date / time:	Issue identified:	Proposed action:	Issue identified by / contact number:	Result of action:
			Person responsible: ☐ Notified	
			Progress:	Date:
Date / time:	Issue identified:	Proposed action:	Issue identified by / contact number:	Result of action:
			Person responsible: ☐ Notified	
			Progress:	Date:
Date / time:	Issue identified:	Proposed action:	Issue identified by / contact number:	Result of action:
			Person responsible: ☐ Notified	
			Progress:	Date:
Date / time:	Issue identified:	Proposed action:	Issue identified by / contact number:	Result of action:
			Person responsible: ☐ Notified	
			Progress:	Date:
Date / time:	Issue identified:	Proposed action:	Issue identified by / contact number:	Result of action:
			Person responsible: ☐ Notified	
			Progress:	Date:
Date / time:	Issue identified:	Proposed action:	Issue identified by / contact number:	Result of action:
			Person responsible: ☐ Notified	
			Progress:	Date:

If additional space is needed: a *Medication Action Plan (MAP) Issues / Actions (Additional Page)* is available from the Medication Services Queensland website. Tick a box each time an extra page of issues is added. ☐ 1 ☐ 2 ☐ 3

MEDICATION ACTION PLAN (MAP)

KEEP WITH ACTIVE MEDICATION CHART - DO NOT REMOVE

MEDICATION ACTION PLAN (MAP)



Recently ceased or recent changes to medicines (prior to presentation to hospital)

Sources of medicine list

Source	Confirmed by	Date	Source	Confirmed by	Date
General practitioner / specialist			Patient list		
Community pharmacist			Previous admission		
Patient / carer			Own medicines		
Residential care facility			Other		
Community nurse					

General information

Medicines usually administered by: Self Other (specify):

Preferred administration method:

Did patient bring own medicines? All Some None Consent to use: Yes No Location:

Are the patient's immunisations up to date? Yes No Comments:

General practitioner details | Community pharmacist details | Residential care facility details

Assessment of medication self-management needs

Lives alone Yes No
Lives in residential care facility Yes No
Uses dose administration device (i.e. spacers, inhaler devices) Yes No
Uses administration aid Yes No
If yes, specify:
Has impaired hearing Yes No
Has impaired vision Yes No
Has impaired cognition Yes No
Has swallowing issues Yes No
Has difficulty reading / comprehending labels Yes No
Has difficulty understanding English Yes No
If yes, language spoken:
Has difficulty opening bottles Yes No

Has difficulty measuring liquids Yes No Not an issue
Uses medication list Yes No
Has had a recent Home Medicines Review Yes No
Has suspected nonadherence Yes No
Assess adherence by asking:
- *"People often have difficulty taking their pills for one reason or another...have you had any difficulty taking your pills?"*
- *"About how often would you say you miss taking your medicines?"*

Medication history checklist

- Prescription medicines
- Sleeping tablets
- Inhalers, puffers, sprays, sublingual tablets
- Oral contraceptives, hormone replacement therapy
- Over-the-counter medicines
- Analgesics
- Gastrointestinal drugs (for reflux, heartburn, constipation, diarrhoea)
- Topical medicines (e.g. creams, ointments, lotions, patches)
- Complementary medicines (e.g. vitamins, herbal or natural therapies)
- Inserted medicines (e.g. nose / ear / eye drops, pessaries, suppositories)
- Injected medicines
- Recently completed courses of medicine
- Other people's medicine
- Social and recreational drugs
- Intermittent medicines (e.g. weekly or twice weekly)

KEEP WITH ACTIVE MEDICATION CHART - DO NOT REMOVE

Page 2 of 4

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ALLERGIES & ADVERSE DRUG REACTIONS (ADR)
Nil known Unknown (tick appropriate box or complete details below)

Drug (or other)	Reaction / date	Initials

Sign ..... Print ..... Date .....

(Affix identification label here and overleaf)

URN:
Family name:
Given name(s):
Address:
Date of birth: Sex: M F I

First Clinician to Print Patient Name and Check Label Correct:

Medicines taken prior to presentation to hospital

Reconcile with Medication Chart (✓)
Key ✓ Continue W Withhold ✕ Cease ▲ Change

Medicine (Generic name (trade name) / strength / form / route)	Dose	Frequency	Indication (confirm with patient)	How long or when started	Dr's plan on admission	Reconcile (✓)

If additional space is needed: a *Medication Action Plan (MAP) Medicines (Additional Page)* is available from the Medication Services Queensland website. Tick a box each time an extra page of medicines is added. 1 2 3

Documented by:

Signature:	Print name:	Designation:	Date:	Entered into eLMS

Counter signed by (if required):

Signature:	Print name:	Designation:	Date:	Initial:

KEEP WITH ACTIVE MEDICATION CHART - DO NOT REMOVE

MEDICATION ACTION PLAN (MAP)

MEDICATION HISTORY INTERVIEW - 8 STEPS

1. Obtain relevant patient background
2. Open the consultation
3. Confirm/ document allergies/ ADR
4. Take/document medication history
5. Undertake a thorough adherence assessment
6. Assess medication management ability
7. Confirm medication history
8. Reconcile medication history with medication chart and current medical problems

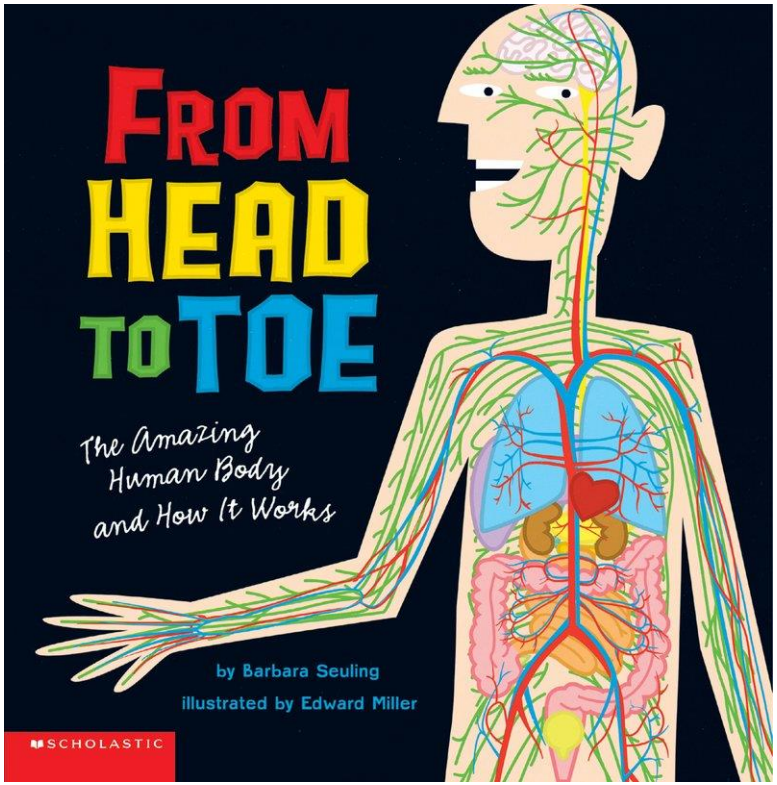
Medication History

For each medicine, record:

- Generic name
- Brand names
- Strength
- Form
- Dose
- Frequency
- Duration of therapy
- Indication (patient's perception)

Medication History checklist

- Prescription medicines
- Sleeping tablets
- Inhalers, puffers, sprays, sublingual tablets
- Oral contraceptives, HRT
- Analgesics
- Gastrointestinal drugs e.g. reflux
- Complementary medicines e.g. herbals and vitamins
- Topical medicines e.g. creams, ointments, patches
- Inserted medicines e.g. nose/ear/eye drops, pessaries, suppositories



Medication History checklist

Medicines that are often forgotten:

- Injected medicines
- Recently completed medicines
- Other people's medicines
- Social and recreational drugs
- Intermittent medicines (e.g. Weekly)
- Recently ceased or altered medications

Benefits/ limitations of using Patient's own medications

Positive:

- Used as prompt/ prop:
  - Can you show me what you take?
  - Do you take these?
  - How many of these do you take?
- Labels and dates
  - Idea re adherence
  - Contact details
  - Multiple pharmacies
- Identify errors

Negative:

- Not all brought in:
  - Inhalers, drops, injections, patches, fridge items left behind
- Doses on labels may have changed over time
- Not all are own medicines

Confirming Medication History

If clarification is required after obtaining medication history from patient, consult (after obtaining patient's consent):

- Carer/s, nursing home
- Other doctors (e.g. local medical officers)
- Other pharmacies
- Patient's medicines/list of medicines
- Patient's prescriptions
- Medical notes
  - discharge card
  - previous outpatient visit/s

Adherence

- Why is it so important?

Medication Adherence

- Most patients vary from prescribed regimen
  - Over & under dosing, OTC meds
  - A rule of 1/6th exists for adherence
    - **1/6th take everything as prescribed**
    - 1/6th regularly forget 1 or 2 or more doses of medicines
    - 1/6th deviate significantly from the intended regime – either intentionally or unintentionally
    - 1/6th actively take “holidays” from certain medicines for a period of time
    - 1/6th take holidays from many if not all medicines for longer periods of time
    - **1/6th take nothing at all except maybe the morning or day before a doctor’s appointment**

How to assess adherence

Question the patient on adherence to medications:

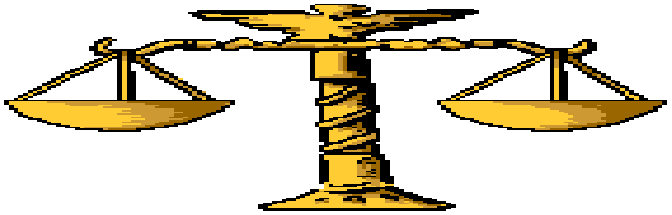
- “People often have difficulty taking their pills all the time…have you had any difficulty taking your pills?”
- “About how often would you say you miss taking your medicines?”

Risks vs Benefits of Treatment

➔Beliefs about medicines are the strongest predictor of how people use them

In deciding whether to take medication many patients engage in a risk-benefit analysis

Necessity



Concerns

Patients' actions might not correspond to treatment recommendations (e.g. taking less)

Medication Management: Risk Assessment

Assess the patient's ability to manage their own medications

Levels of Independence

- looks after own medicines
- lives in Nursing Home
- uses dose device
- uses administration aid
- uses medication record

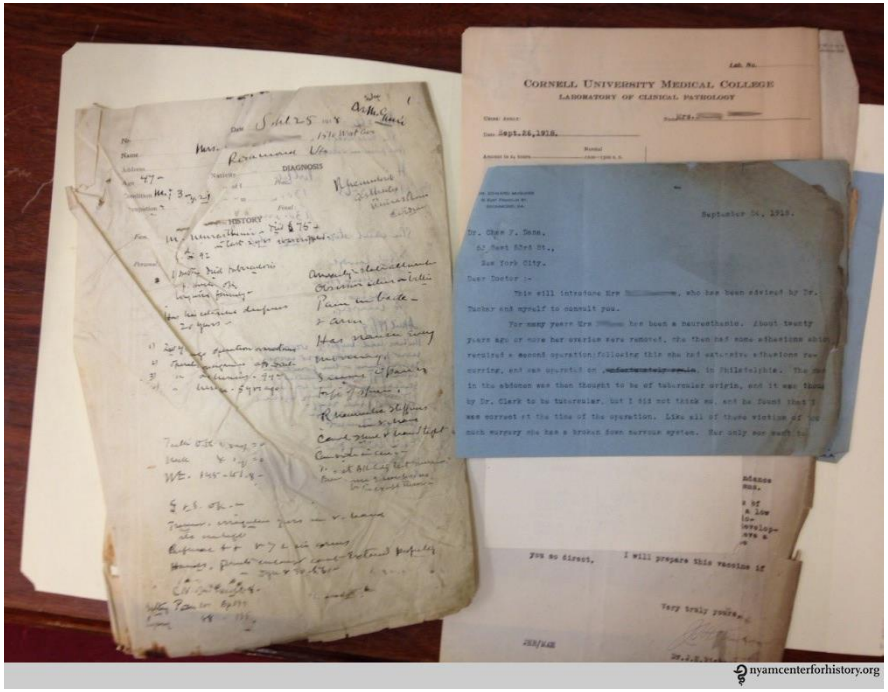
Medication Management: Risk Assessment (2)

Assess the patient's ability to manage their own medications

Patient Assessment

- can read
- can see/read labels
- understand label
- can open bottles
- can measure liquids

Case notes


CORNELL UNIVERSITY MEDICAL COLLEGE
LABORATORY OF CLINICAL PATHOLOGY
Very truly yours,
nyamcenterforhistory.org

Common Structure of Case Notes

- **Brief introduction: age, gender & problem**
- **C/O - complains of**
- **HPC - history of presenting complaint**
- PMH -past medical history
- O/E - on examination – may include review of systems

- FH family history
- SH social history
- DH drug history
- Biochemical data and other results
- Problem list /Provisional diagnosis
- Action Plan

Case History

Mr CP, 68 year-old gentleman admitted to hospital in a confused state

C/O (Complains of)

- cough
- vomiting

HPC (History of presenting complaint)

- 2/52 history of worsening confusion
- Increasing cough and mucopurulent expectoration.
- Chest pain^{o} palpitations^{o} haemoptysis^{o} Wt loss^{o}

What does this little zero mean?

Common Structure of Case Notes

- Brief introduction: age, gender & problem
- C/O - complains of
- HPC - history of presenting complaint
- **PMH -past medical history**
- **O/E - on examination – may include review of systems**

- FH family history
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Case History

PMH

- Chesty for over 20 years – COPD
- RA for 15 years
- PUD 2002

O/E (on examination)

- Dyspnoeic and centrally cyanotic
- JVP NE
- BP = 140/90
- PR = 98 regular
- Scattered rhonchi and bilateral basal crepitations
- Moderately confused and disorientated.

Common Structure of Case Notes

- Brief introduction: age, gender & problem
- C/O - complains of
- HPC - history of presenting complaint
- PMH -past medical history
- O/E - on examination – may include review of systems

- **FH family history**
- **SH social history**
- DH drug history
- Biochemical data and other results
- Problem list /Provisional diagnosis
- Action Plan

Case history

FH (Family history)

- Both parents dead
- Mother died at 64 yrs following long history of IHD and 2x MIs

SH (Social history)

- Pensioner
- ex-baker (30 yrs)
- lives on the 12th floor of a tower block
- married (Wife is 65yrs old alive and well)
- two sons – 38 and 34 yrs – both alive and well

Common Structure of Case Notes

- Brief introduction: age, gender & problem
- C/O - complains of
- HPC - history of presenting complaint
- PMH -past medical history
- O/E - on examination – may include review of systems

- FH family history
- SH social history
- **DH drug history**
- Biochemical data and other results
- Problem list /Provisional diagnosis
- Action Plan

Case History

DH (Drug history)

Prescribed medicines – name, dose and duration?

OTC medicines – name, dose and duration?

Complimentary medicines – name, dose and duration?

Allergies and adverse drug experiences?

Smoking habits – how long, how many?

Alcohol intake – units/week?

Recreational drugs – habits?

Compliance assessment – when and how do you use your medicines?

Case History

DH

Salbutamol Inhaler 2 puffs PRN

Ipratropium Inhaler 2 puffs qid

Prednisolone 7.5mg daily(RA)

Simple linctus 5-10 mL PRN

Methotrexate 10mg weekly

OTC^{o} Complimentary^{o}

Allergies: Nil Known

Case History

Smoking Hx

- stopped 3 yrs ago
- smoked 30 a day for 30 years

Alcohol Hx

- rarely now
- did drink 55 units/week for many years.

No recreational drugs

Compliant with medicines

- Son and wife manage this for him.

Common Structure of Case Notes

- Brief introduction: age, gender & problem
- C/O - complains of
- HPC - history of presenting complaint
- PMH -past medical history
- O/E - on examination – may include review of systems

- FH family history
- SH social history
- DH drug history
- **Biochemical data and other results**
- Problem list /Provisional diagnosis
- Action Plan

Case History

Biochemical Results

Na^+	141 mmoles/L	(135-145)
K^+	3.8 mmoles/L	(3.5 -5.0)
Urea	8 mmoles/L	(2.5 – 7.0)
Cr	100 µmoles/L	(40 -120)
Hb	17.7 g/dL	(14-16)
Hct	0.57	(0.36 – 0.46)
WCC	**18.1 x 10^9/L**	**(4-11)**
pH	**7.16**	**(7.32-7.42)**
$PaCO_2$	**11.21 kPa**	**(4.5-6.1)**
PaO_2	**10.23 kPa**	**(12-15)**

Case History

RoS (Review of Systems)

General then

- CVS - Cardio-vascular
- RS – Respiratory
- CNS – Central Nervous
- Endocrine

RS

RR = respiratory rate = 28 bpm (tachypnoeic)

PEFR = peak expiratory flow rate = 220 L/min

Chest X-ray = areas of consolidation = infection (?)

Case History

Diagnosis

Acute exacerbation of COPD – 2^{o} infection

Action Plan

- Introduce nebulised bronchodilators
- Oxygen
- Start IV antibiotic therapy
- Consider increasing dose of steroids temporarily

Case Study

Key elements of pharmaceutical care plan

1. Advise medical staff on:

- Antibiotic choices and doses
  - Check renal function
  - Change to oral asap
- Dosage regimen for bronchodilators
  - Use nebuliser initially
- Oral prednisolone dose increase and consequent tapering to regular dose

Case Study

Key elements of pharmaceutical care plan

2. **Advise nursing staff on:**
   Administration of IV antibiotics
   Administration of nebulised bronchodilators

3. **Advise patient on:**
   Check inhalers and technique
   Check care of inhalers
   Use of medicines – risk/benefit information
   Need for regular influenza jab

ACTIVITY

- Break up into groups of 2
- Within pairs, each person gets a case:
  - **Case one**: Mrs Perera
    - Student 1: pharmacist
    - Student 2: patient
  - **Case two**: Mr Weerasekera
    - Student 1:patient
    - Student 2: pharmacist

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SUMMARY

- Medication histories are complicated
  - The most readily available source of information might not be the best!
  - All sources have limitations
- Need to check for adherence
- Providing a good medication history and medication reconciliation enables good patient care