

LONDON OLDER PEOPLES SERVICE DEVELOPMENT PROGRAMME The Medicines Management Project

The In-depth Medication Assessment

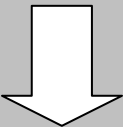
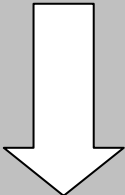
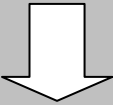
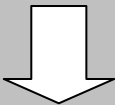
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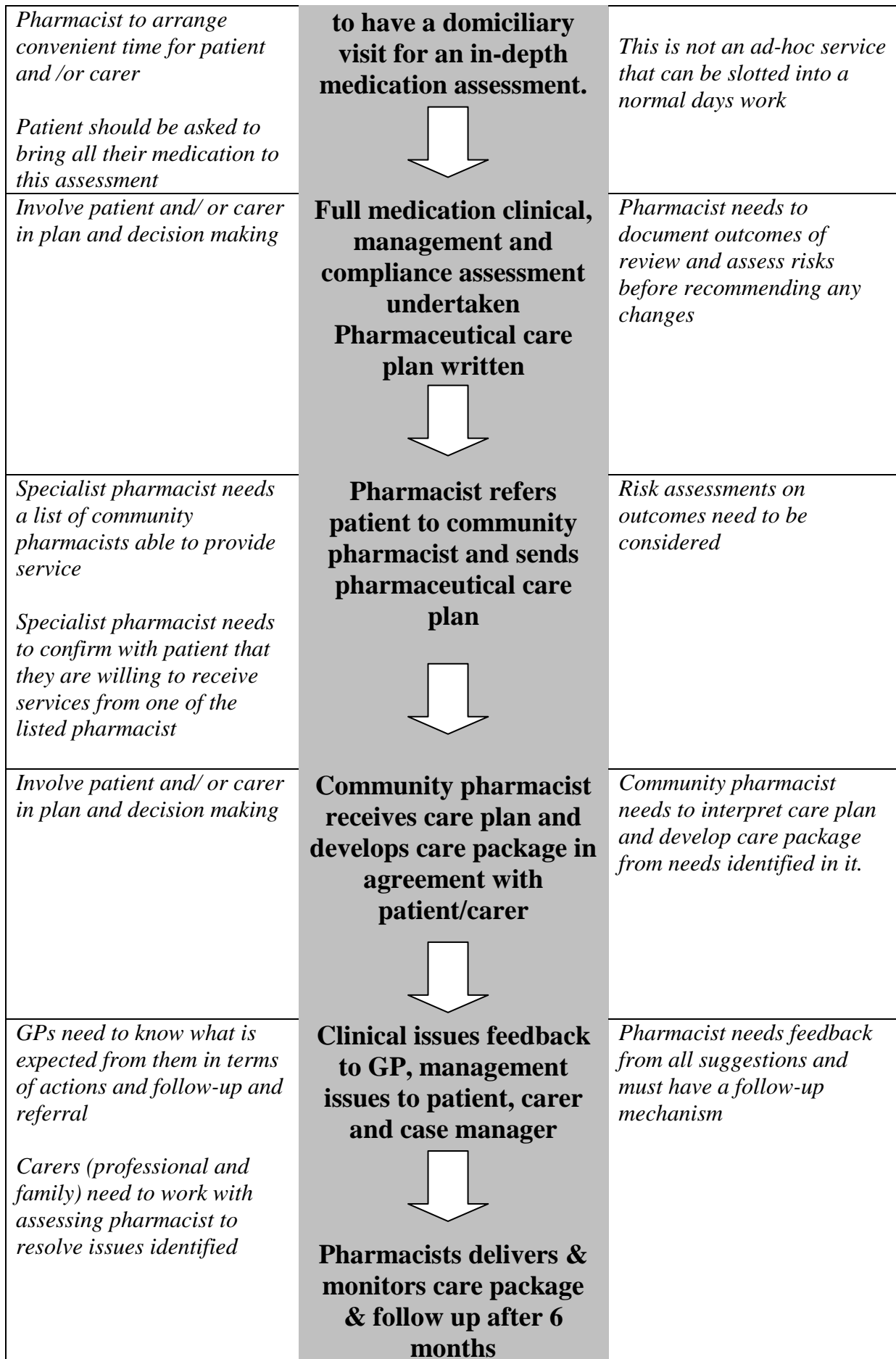
April 2003

Many thanks to the following for giving permission to use their materials

1. Chris Ranson. Essex Riverside Healthcare NHS Trust. Collaborative Care Initiative. 2002
2. Sangeeta Sharma. Wandsworth PCT Medication Assessment Tool 2002.
3. Karen Rosenbloom. Medication Management Assessment 2002
4. Lambeth PCT. Structured Approach to Medication Review. 2002

THE IMPLEMENTATION PROCESS

WHOSE IS INVOLVED	PROCESS	TRAINING REQUIRED
<p><i>All health and social care professionals need to be aware of these questions and understand that if a patient takes regular medication they should include these questions as part of the standard assessment</i></p>	<p>4 questions to be asked as part of single assessment process</p> 	<p><i>Awareness of questions amongst professional groups</i></p> <p><i>GPs need to know of potential for medication issues to be raised</i></p>
<p><i>Local pharmacists who can do a specialist assessment need to be identified to all health and social care staff who are likely to carry out single assessment process</i></p> <p><i>Assessor needs to confirm with patient that they are willing to have a specialist pharmacist review</i></p> <p><i>Assessor needs to inform patient of assessing pharmacist's name</i></p>	<p>If answer to any of the 4 questions is YES, referral to a specialist pharmacist for in-depth assessment</p> 	<p><i>Specialist pharmacists need training in interface issues and clinical medicine management issues for the elderly.</i></p> <p><i>Staff conducting the single assessment exercise need to be aware of the pharmacists in their locality who are able to conduct a specialist assessment</i></p>
<p><i>Health or social care professionals need to notify pharmacist of need for specialist assessment. This could be done centrally through the PCT offices or directly to assign pharmacists</i></p>	<p>Specialist pharmacist receives a referral as an outcome of a OP having a single assessment</p> 	
<p><i>Pharmacist needs to contact patients GP or have access to necessary information</i></p>	<p>Specialist pharmacist contacts OP's GP to get a brief medication and medical history, and documents this information</p> 	<p><i>GP surgery staff including practice manager and GPs need to know that requests for medication histories and medical record information may be sought by specialist pharmacist</i></p>
<p><i>Patients need confidence that the pharmacist is genuine</i></p>	<p>Specialist pharmacist contacts OP and organises for them to come into pharmacy or</p>	<p><i>Pharmacist needs to organise reviews, maybe 1 afternoon a week or 1 day every 2 weeks</i></p>



ASSESSMENT TOOLS

The 4 Medication Trigger Questions

Area of Concern	Single Assessment Process (SAP) Questions
Access issues	Q1. I need help getting a regular supply of my medicines.
Compliance issues	Q2. Sometimes I do not take my medicines the way that the doctor wants.
Day to day medicines management issues	Q3. There are some medicines that I cannot swallow or get out of their containers.
Clinical issues	Q4. Realistically, I think some of the medicines that I take could work better.

Patients can be asked if they agree or disagree with these sentences

The in-depth medication assessment should be carried out by a specially trained pharmacist for patients who have been identified as having a pharmaceutical need via the Single Assessment Process.

The assessment could be carried out in the community or primary care setting e.g pharmacy, day centre, patient's home.

Prior to the assessment the pharmacist should access relevant information from the patient's GP so they are aware of patient's current condition and obtain a list of medication that the GP thinks they are taking e.g computer print out.

The assessing pharmacist should ask to see all the patient's current medication during the assessment.

The in-depth medication assessment covers the following areas:

1. Basic information (use contact assessment where available)
2. Access issues
3. Compliance issues
4. Day to day Medicines management issues
5. Clinical issues- medication review

The tool is designed so that the 4 questions are covered in different sections of the tool. This allows different sections to be added or removed as deemed appropriate according to local needs. Similarly, the instructions and scoring for this tool will need to be locally agreed and incorporated.

In-depth Medication Assessment Form

Date of Assessment: _____

Referred by _____

Assessed by _____

Referee's Position: _____

1. BACKGROUND AND DEMOGRAPHIC INFORMATION

Attach the contact or overview assessment form (received as part of referral process) **OR** complete the details below. **This page can be adapted to suit the local tool used for the contact assessment if required.**

Patient's Name		Date of Birth	
Address		Medication Allergies	
Phone Number		Gender	
Additional Phone Number		Preferred First Language	
Diagnoses &/or Conditions			

	Name	Address	Phone Number/s
Patient's GP			
Local Pharmacist			
Any Other Contact <i>(e.g. nurse, relative, etc)</i>			
Patient's Carer			
Is the carer:	Formal (paid) Informal (unpaid)	How often does the carer visit the patient?
<i>If informal, what is the carer's relationship to the patient</i>	Spouse Relative	Friend Other (specify)	

Does the patient live alone?	No	Yes <i>(If yes, please answer questions 1,2 and 3)</i>
1. Is the patient able to answer the door?	Yes	No Don't know
2. Are they able to use the telephone unassisted?	Yes	No Don't know
3. Do they require assistance when they leave the house and go out? <i>If yes, please explain:</i>	Yes	No Don't know
.....		
.....		

2. ACCESS ISSUES

- A. Does the patient have regular appointments with the GP? No
Yes. *How often?*
- B. Does the patient visit the GP: On their own With a relative/family member
With a friend With a carer
Other (*specify*)
- C. Who orders repeat prescriptions for the patient? Carer Practice Nurse
Relative/family member District Nurse
Patient Pharmacist
Other (*specify*) Not applicable
(if N/A, go to G)
1. *If the patient does this, does he/she need to be reminded?* No Yes
2. *If yes, who reminds him/her?*
- D. Who collects repeat prescriptions from the surgery and takes them to the pharmacy? Patient District Nurse
Carer Pharmacist
Relative/family member Other
- E. Who delivers medication to the patient? Patient collects their own District Nurse
Carer Pharmacist
Relative/family member Other
- F. Does the patient ever run out of repeat medication? No
Yes. *How often does this occur?*
.....
- G. How does the patient access OTC medication (*e.g. if they have a cold*)? Patient District Nurse
Carer Pharmacist
Relative/family member Other
- H. Does the patient have any problems accessing either pharmacy and/or GP services? No
Yes. *Explain:*
.....
.....
.....

What are the main issues or risks identified, regarding 'access' issues?

☺ Tip: *If patient cannot order/collect prescription or medication, consider ordering /collection /delivery support*

3. COMPLIANCE ISSUES

3.1. Use of compliance aids

Ask the following questions to establish history regarding the use of compliance aids

- A. Who assists/administers the patient's medication? (*Tick all that apply*)
- | | |
|------------------------------------|--------------------------|
| Patient self-administers | Nurse assists |
| Nurse administers | Carer assists |
| Relative/family member assists | Other (<i>specify</i>) |
| Relative/family member administers | |
- B. Does the patient currently have a compliance aid?
- No (*If no, go to question H*)
 Yes
 If yes, what type of compliance aid?.....

- C. Is the patient able to use this compliance aid unassisted?
 (*e.g. read the labels, open the compartments, get tablets out*)
- | | | |
|--|-----|----|
| | Yes | No |
|--|-----|----|
- D. Does the patient have any problems, difficulties and/or concerns regarding the compliance aid?
- No
 Yes *If yes, explain*

- E. Who initiated the compliance aid?
- | | |
|--------------------------------|----------------|
| GP | Pharmacist |
| Relative/family member | District Nurse |
| Other (<i>specify</i>) | Not known |
- F. Who fills the compliance aid?
- | | |
|--------------------------------|------------------------|
| District Nurse | Carer |
| Pharmacist | Relative/family member |
| Other (<i>specify</i>) | |
- G. What condition is the compliance aid in?
- Good (*e.g. clean, labels legible, not cracked, etc*)
 Poor (*e.g. dirty, labels illegible, cracked, etc*)
- H. Does the patient understand the risk of non-compliance?
- Yes
 No
 If no, have you explained the risks to the patient? Yes No

3.2. Patient's attitude to taking medication

Ask the patient the following questions* to establish how motivated they are to take their medication. Tick the appropriate box and calculate score.

	<u>Yes</u>	<u>No</u>
I. Is it a problem for you to take your medication for as long as the doctor tells you?	0	1
J. Do you find that taking your medication fits in with your daily routine?	1	0
K. Do people often have to remind you to take your medication?	0	1
L. Do you feel confident about how and when you should take your medication?	1	0
Total Score:	_____	

* From: "Domiciliary Pharmacy Service Medication Assessment". *Medicines Management in the Home*. Sept 1996.

3.3. Patient's ability to comply or concur with medication

Complete the following chart* as follows: for each item please circle one answer that is most representative of the patient. When answering, consider how each ability may affect the patient's medication management &/or their compliance with their medication regime.

	1 (bad)	2 (poor)	3 (fair)	4 (good)
A. Number of prescription medications	6 or more	4 – 5	2 – 3	One or less
B. Swallowing	Liquids only	Crushed tablets	Small tablets	Able to swallow tablets whole
C. Sight	Blind	Blurred vision / Partially sighted	Needs glasses	Good
D. Hearing	Deaf	Hard of hearing	Hearing aid	Good
E. Speech	Difficult to understand	Mumbles	Slow	Good
F. Mobility	Bed/chair bound	Unsteady	Slow	Good
G. Movement	Needs assistance	Limb weakness	Shaky	Good
H. Manual Dexterity	Large bottles	Normal caps	Blister	Click-loc
I. Memory	Can't remember what happened yesterday	Can't remember what happened last week	Forgetful	Good
J. Understanding (particularly understanding of English Language)	Difficulty with reading and writing	Often has difficulty understanding medication instructions	Able to understand labels on all of their medication	Good
K. Compliance	Does not take meds	Needs assistance	Occasionally forgets dose	Takes meds regularly
L. Care Arrangements	Needs constant supervision/care	Needs regular assistance	Needs some assistance	Able to manage alone
Scoring:	<i>Give 1 point for each circled answer</i>	<i>Give 2 points for each circled answer</i>	<i>Give 3 points for each circled answer</i>	<i>Give 4 points for each circled answer</i>
Column Scores:	-----	-----	-----	-----
Total Score (Add 4 column scores together) = _____				

What are the main issues or risks identified, regarding 'compliance' issues?

☺ Tip: If patient cannot self-administer, lives alone with no support & motivated consider compliance aid

*Adapted from: "Domiciliary Pharmacy Service Medication Assessment" *Medicines Management in the Home*. Sept 1996

4. DAY TO DAY MEDICATION MANAGEMENT ISSUES

4.1. Patient's ability to self administer their medication

Look at the patient's medication profile and assess their ability to administer their medication correctly. Ask the patient to demonstrate the relevant abilities from the list below and determine whether they require assistance or whether they can manage alone. Please tick the appropriate column for each question.

Ability	Requires assistance	Can manage alone	Comments
a) Able to <u>read</u> labels & directions on medication containers			
b) Able to <u>understand</u> labels & directions on medication containers			
c) Open and remove a tablet from a blister pack			
d) Pick up a tablet from a table/counter			
e) Break/cut a tablet in half			
f) Open and close a child-resistant container			
g) Open and close a regular (non child-resistant) container			
h) Pour liquid medication from a bottle			
i) Correct use of an inhalation device			
j) Ability to instil eye drops correctly			
k) Ability to instil ear drops correctly			
l) Correct use of nasal drops/spray			
m) Correct administration/application of external preparations			
n) Correct administration of insulin			
o) Correct use of diagnostic agents (<i>e.g. blood glucose meter</i>)			
p) Other abilities/devices (<i>explain</i>)			

What are the main issues or risks identified, regarding 'management' issues?

A STRUCTURED APPROACH – assessing patients' knowledge of their medication

Ask the patient the following questions* about each prescribed medication and score

A. What is the name of your medicine? (*Point to/show each item and ask patient to name it*)

	<u>Score</u>
Does not have any idea of the name of the medication	1
Unsure of name, pronunciation <u>would not</u> be understood	2
Fairly confident – pronunciation would be understood	3
Confident about name – pronunciation correct	4

B. What dose do you take (including 'prn' medication)?

	<u>Score</u>
Does not know how many/how much to take or frequency of administration	1
Knows how many/how much to take, unsure of frequency of administration	2
Does not know strength but knows how many/how much to take and frequency of administration	3
Is confident, knows strength, how many/how much and when to take it	4

C. What is this medication used for?

	<u>Score</u>
Has no idea what the medication is used for	1
Not confident, but has some knowledge with prompting	2
Knows lay terms (<i>e.g. water tablet</i>)	3
Knows what the medication is and why to take it	4

D. How long do you have to take this medication for?

	<u>Score</u>
Has no idea if it is long or short term therapy	1
Unsure, but would seek advice before running out	2
Knows if it is long or short term therapy	3

E. What would you do if you forgot to take a dose of this medication?

	<u>Score</u>
Would act <u>inappropriately</u> (<i>e.g. take double the quantity next time</i>)	1
Would seek advice from pharmacist, nurse, carer, or GP	2
Would take <u>appropriate</u> action (<i>e.g. take correct dose next time</i>)	3

F. Do you know about any possible side effects of this medication?

	<u>Score</u>
No idea of the side effects <u>or</u> is incorrect about the side effects	1
Knows some of the side effects	2
Knows all of the important side effects	3

*From: "Domiciliary Pharmacy Service Medication Assessment". *Medicines Management in the Home*. Sept 1996.

A Structured Approach to Medication Review

ode CONSIDER THE APPROPRIATENESS OF EACH DRUG	
A. Diagnosis	What was the initial indication? Is it necessary to continue?
B. Efficacy	Is it evidence-based? Is it a drug of limited therapeutic value?
C. Contra-indications	Is drug contraindicated in the patient?
D. Side effects	Common side effects, troublesome or harmful, short term or long term
E. Dose	Should it be increased or decreased? Is dose sub-therapeutic?
F. Cost effectiveness	Is it a formulary drug? Is there an equivalent generic or standard formulation (limit branded, m/r and e/c formulations)
G. Toxicity	Weigh potential risks and benefits
H. Drug interactions	Consider prescription and non-prescription drugs. Are they all necessary?
I. Monitoring & tests	Are they recorded and up to date. Are they shared-care drugs

CONSIDER THE PATIENT'S MEDICAL CONDITIONS	
J. Untreated indication	Patient has a problem that requires drug therapy but is not receiving medication for the indication.
K. Drug use without indication	Patient is taking a drug without a valid medical reason.
L. Improper drug selection	Patient has a problem that requires drug therapy but is receiving wrong medication.
M. Sub-therapeutic dose	Patient has a problem that is being treated with inadequate dose of the correct drug
N. Failure to receive drug/device	Patient has a problem that is a result of not receiving a drug/device (e.g pharmaceutical, psychological, sociologic, or economic reasons).
O. Overdose	Patient has a medical problem that is being treated with an excessive dose of the correct medication.
P. Adverse drug reaction	Patient has a problem as the result of an unintended or detrimental adverse drug effect.
Q. Drug interaction	Patient has a problem that is the result of a drug-drug, drug-food interaction.

DRUGS TO AVOID IN THE ELDERLY- INDEPENDENT OF DIAGNOSIS	
<input type="checkbox"/> Co-proxamol	<i>Propoxyphene</i> should generally be avoided. It offers few analgesic advantages over Paracetamol , yet has side effects of other narcotic drugs.
<input type="checkbox"/> NSAIDs	May exacerbate ulcer disease, gastritis, or gastroesophageal reflux disease (GORD). Ibuprofen is the drug of choice if necessary. Of all the NSAIDs, <i>indomethacin</i> produces the most CNS side effects - AVOID.
<input type="checkbox"/> Benzodiazepines	Long acting benzodiazepine (BDZ) hypnotics have extremely long half-life in the elderly (often days), producing sedation and increasing incidence of falls & fractures. Medium/short-acting BDZ like temazepam , loprazolam , lormetazepam are preferable.
<input type="checkbox"/> TCAs	Because of its strong anticholinergic and sedating properties, <i>Amitriptyline</i> and Doxepin are rarely the antidepressant of choice for the elderly. May worsen constipation and induce arrhythmias.
<input type="checkbox"/> Digoxin	Because of decreased renal clearance of digoxin, doses in the elderly should rarely exceed 125 mcg daily, except when treating atrial arrhythmias.
<input type="checkbox"/> Oral hypoglycaemics	<i>Chlorpropamide</i> and <i>glibenclamide</i> have prolonged half-life in the elderly and can cause prolonged and serious hypoglycemia. Additionally chlorpropamide causes syndrome of inappropriate secretion of antidiuretic hormone-AVOID. Gliclazide and tolbutamide are preferred
<input type="checkbox"/> Antipsychotics	Clozapine , Chlorpromazine and thioridazine , lower seizure threshold. May cause sedation and falls. Use atypicals for newly diagnosed patients
<input type="checkbox"/> Metoclopramide	May precipitate claudication and parkinson-like effects-AVOID. Domperidone may be preferred.

A Structured Approach to Medication Review

CONSIDER THE PATIENT	
<input type="checkbox"/> Health status	Renal, cardiac and hepatic disease, recent surgery/hospitalisation
<input type="checkbox"/> Cognitive status	Patient's understanding of why , when and how to take each drug especially prn drugs, preventive and treatment inhalers, hay fever drugs, pain killers etc
<input type="checkbox"/> Compliance	Can regimen be simplified, avoid polypharmacy, is a compliance aid necessary?
<input type="checkbox"/> Current drugs	Including non prescription medicines and alcohol intake
<input type="checkbox"/> Unwanted effects	Effect on every day tasks and restrictions on social life
PATIENTS LIKELY TO BE AT HIGHER RISK FROM ADVERSE DRUG EFFECTS	
<input type="checkbox"/> Number of active chronic medical diagnoses (> 6)	<input type="checkbox"/> Recent transfer from hospital
<input type="checkbox"/> Number of doses of medication per day (> 12)	<input type="checkbox"/> Advanced age (> 75 years)
<input type="checkbox"/> Six or more medications	<input type="checkbox"/> Prior adverse drug reaction
<input type="checkbox"/> Cognitive impairment including dementia	<input type="checkbox"/> Cancer, Depression
<input type="checkbox"/> Decreased renal function (estimated Cl_{Cr} < 50 mL/min)	<input type="checkbox"/> Low body weight or BMI (<22 kg/m ²)

DRUGS THAT REQUIRE MONITORING DURING THERAPY*				
Drug	Tests before	Tests during	Frequency	Notes
ACE Inhibitors	U&Es, creatinine, renal function,	U&Es, creatinine,	14 days after starting then periodically	
Amiodarone	TFT, LFT, chest X-ray	TFT, LFT	6 mthly	If pulmonary toxicity suspected, chest X-ray, lung function tests.
Azathioprine		FBC, differential WBC	Wkly for first 8 wks then mthly	
Carbimazole Propylthiouracil		WBC, Free thyroxine levels	Within 3 months of starting. 4-6 wkly until euthyroid then 3-6 mthly	
Clozapine	FBC, differential WBC	FBC, differential WBC	Wkly for first 18 wks then every 2 wks for 1 yr then mthly	Monitoring carried out by Clozaril. Patient Monitoring Service
Cyclophosphamide		FBC, differential WBC, urinalysis	Wkly for first 8 wks then mthly	
Cyclosporin	BP, serum creatinine, bilirubin, enzymes, urea, lipids, liver	Serum creatinine, urea, K ⁺ , bilirubin, liver, enzymes, lipids, BP	Wkly initially then every 4 wks.	Check trough level if adding or stopping drug known to affect levels Avoid high dietary K ⁺
Digoxin	Kidney function, potassium, TFT	Kidney function, potassium, TFT	Periodically	check level 1 week after adding or stopping an interacting drug
Diuretics		Serum electrolytes	Periodically	Repeat tests after adding or removing an interacting drug
Erythropoietin	Hb, iron status, faecal occult blood, BP, Coomb's test,	FBC, iron status BP	Mthly Wkly	
Gold	No	FBC, differential WBC, urinalysis	If IM -before each injection. If orally-monthly	
Lithium		TFT	Initially every 6 months then annually	Measure drug level 12 hours after dose.
Methotrexate	Renal function, LFT, FBC, proteinuria, haematuria	FBC, differential WBC, urinalysis, renal function, LFTs	Fortnightly for first 3 months then mthly	
Penicillamine		FBC, differential WBC, urinalysis	Fortnightly for first 6 weeks then mthly.	Repeat tests 1 week after any dose increase
Statins	Liver function	Liver enzymes, creatine kinase	First 4 mths and then periodically	
Sulphasalazine	FBC, differential WBC	FBC, differential WBC, LFT	Mthly for first 3 mths then every 6 months Mthly for first 3 mths	Abnormalities usually occur within the first 3-6 mths and are reversible on stopping
Ticlopidine	No	FBC, differential WBC		
Vitamin D	No	Serum calcium Serum creatinine if receiving calcitriol	Initially weekly At 4 wks, 3 and 6 mths and then 6-mthly	Where pharmacological doses are prescribed.
Warfarin	No	INR	Daily or on alternative days initially, then at longer intervals (depending on response) then up to 8wkly	Repeat INR 1 week after adding or stopping an interacting drug

4. Clinical issues and medication review

- List the patient's prescription medication including the dosage, form and indication (please use additional paper or overleaf if required).
- For each medication listed, ask the patient questions A to F on the '*structured approach to assessing patients knowledge of their medication*'
- Record the score for each question in the appropriate column. If the patient is unable to answer or does not know, assign a score of 0.
- Using the '*structured approach to medication review*' identify and record potential and actual medication problems

Prescribed Medication	Dosage	Form	Indication	Patient's Knowledge of Medication						Potential problem or prescribing issue
				A	B	C	D	E	F	
1.										
2.										
3.										
4.										
5.										
6.										
7.										
8.										
9.										
10.										
11.										
Scoring: For each column, A – F, please add the total number of points and indicate in the boxes to the right.			Column Totals:	A	B	C	D	E	F	Total Score

Other Medication (e.g. medicines from hospital consultants, out patients department or community hospital, etc)

Prescribed Medication	Dosage	Form	Indication	Patient's Knowledge of Medication						Potential problem or prescribing issue
				A	B	C	D	E	F	
12.										
13.										
14.										
15.										

Other Medication (e.g. Over the counter [OTC], herbal, homeopathic, etc.)

Preparation	Frequency of Use	Indication	How long has patient been taking it for	Where did patient get it from
16.				
17.				
18.				
19.				
20.				

Other Relevant Information (e.g. blood tests, sensitivities, chronic conditions and past medication history)

PHARMACEUTICAL CARE PLAN

Patients name:	DOB:	Assessed by	Date:	Tel:
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PHARMACEUTICAL NEEDS IDENTIFIED	PLAN	ANTICIPATED OUTCOMES AND ACTION
<u>Access issues</u>		
<u>Compliance and day-to-day medicines management issues</u>		
<u>Clinical issues</u> -(Identify the problem or risk involving medication, including failure to prescribe for an condition)		

- Has a copy of the care plan been sent to the patient's preferred community pharmacist? Yes No. Date sent
- Is the patient's preferred community pharmacist able to provide the necessary items as indicated above? Yes No.
- *If no, explain*(Send letter D to inform GP and pharmacist about care plan)