



**ROBERT GORDON
UNIVERSITY ABERDEEN**

An evidence based approach to
developing an individualised
patient care plan

Focus on data gathering

European Association of Hospital
Pharmacists
2018

Dr Antonella Tonna
Dr Katie Gibson-Smith
Prof Derek Stewart

Disclosure of Relevant Financial Relationships

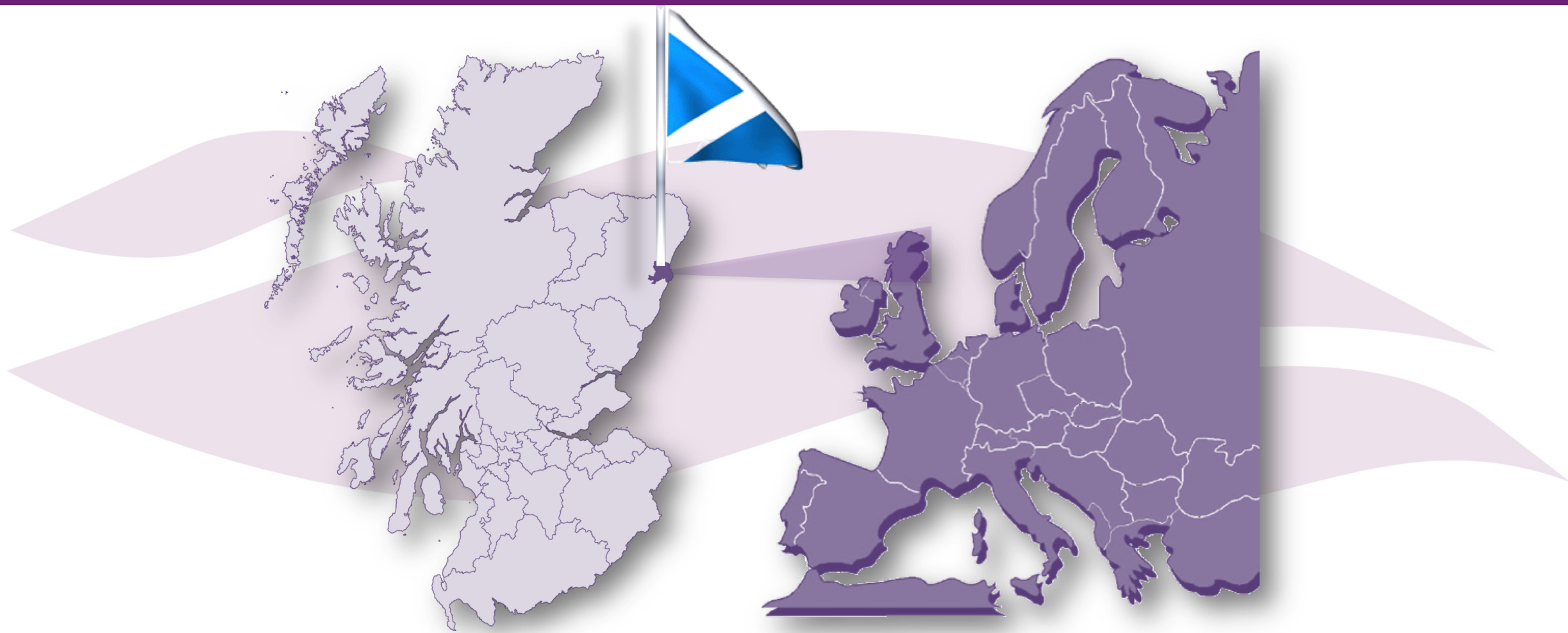
- Nothing to declare



Programme Outline

- 14:30 – 15:00 Introductions
- 15:00 – 16:15 What are the sources of information available to us in hospital to gather data?
- Group activity: Planning a patient interview
- 16:15 – 16:45 Coffee break
- 16:45 – 18:00 How can we make informed decisions on a patient's therapy?
- Group activity: Gathering data from the literature
- 18:00 – 18:30 Discussion and final thoughts





EAHP 2018 (Gothenburg
20th– 23rd March)



**ROBERT GORDON
UNIVERSITY ABERDEEN**

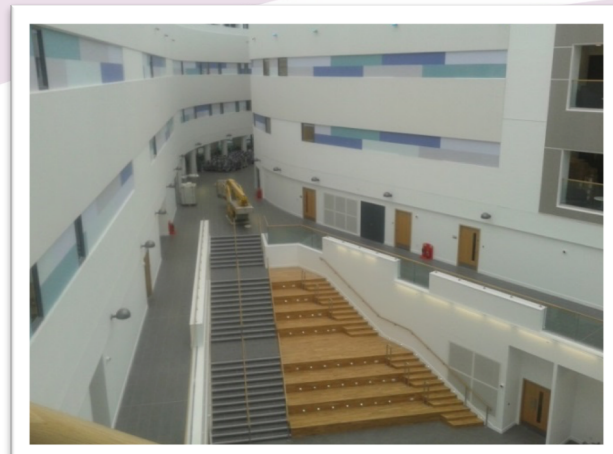
Aberdeen in the sunshine



Aberdeen in the winter



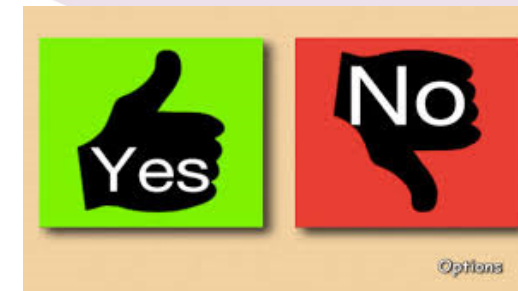
Our new campus ... maybe not so new now!



- Pharmacists can use different sources of information to obtain a patient drug history.



- Drug histories compiled by pharmacists are usually more accurate than those taken by other health care professionals



Introduction

Why Pharmaceutical Care?

Changing emphasis of service provision

- risk management / quality
- economy
- safe, effective & rational drug use
- more patient focussed and less supply focussed
- ALL lead to CLINICAL PHARMACY

Clinical Pharmacy

- since 1960s – pharmacist leaving dispensary and going to ward
- patient focus
- knowledge, skills & attitudes (structures)
- NO PROCESS

NO PROCESS until.....

- Hepler C & Strand L, Opportunities and Responsibilities in Pharmaceutical Care, AJHP, 1990;47:533-543



Hepler & Strand



Definition of Pharmaceutical Care:

- “....**responsible** provision of drug therapy for the purpose of achieving **definite outcomes** that improve a patient’s **quality of life.**”

Outcomes:

- Cure of the disease
- Elimination and reduction of patient’s symptoms
- Arresting or slowing of the disease process
- Disease prevention

So Pharmaceutical Care

- describes a systematic PROCESS
- is patient focussed
- calls for professional responsibility for actions / advice
- defines outcomes to be achieved



So, more robust, professional philosophy of practice

Hepler & Strand Process

- Pharmacist co-operates with: patient & other professionals to design, implement and monitor a therapeutic plan
- Identify potential / actual drug related problems (DRPs)
- resolve actual DRPs
- prevent potential DRPs
- **....regardless of setting**

In Scotland....

A recognition that different models/ variations of PC....

Documents in response to this



- **Clinical Pharmacy in the hospital service: a framework for practice, HMSO 1996**
- **Clinical Pharmacy practice in primary care, HMSO 1999**

Both describe **SYSTEMATIC APPROACH TO PRACTICE** similar to Hepler & Strand's

- Scottish 'Vision and Action Plan' for pharmacy
- 'Pharmaceutical care is a key component of safe and effective healthcare.' Bill Scott, formerly Chief Pharmaceutical Officer.



<http://www.scotland.gov.uk/Resource/0043/00434053.pdf>

RoseMarie Parr,
CPO from 2015

Systematic Approach

- 1. Gather patient information**
- 2. Identify problems (needs for drug / pharmacy service)**
- 3. Prioritise problems**
- 4. Relate problems to medicines**
- 5. Define goals for problems**
- 6. Synthesise care plan - care issues / actions**
- 7. Implement care plan**

This workshop will focus mainly on gathering patient information – Step 1 in the systematic approach; and Step 6 making recommendations for improving the pharmaceutical care of an individual patient as part of a care plan

What sources of information are available in hospital?

In your groups, list sources of information that may be used to gather patient information for a care plan.

Consider advantages and disadvantages of each.
Be prepared to present your findings to the group.

Pharmaceutical Care Plan - Patient Profile

Name: Annie Lennox **DOB:** 75 years ago **GP/Consultant:** Dr Stewart

Address: 112 Gt Western Terrace, Aberdeen **Tel:** 422333 **NHS No:**

Height (m): **Weight (kg):** 72 **BMI:** **Smoker** **Non-Smoker** **Ex-smoker**

Home/social circumstances: Married

ADR/sensitivities: No known drug allergies

Presenting complaint (if relevant): Patient admitted 5 days ago due to redness and pain in her right big toe. This was diagnosed as a skin and soft tissue infection. She will soon be discharged and as the ward pharmacist, you are ensuring that all her medications are safe and ready for her when she leaves the hospital. You are also providing her with some advise.

Relevant medical history	Date of diagnosis	Relevant medical history	Date of diagnosis
Type 2 diabetes	12 years ago	Ulcer (R) big toe	1 week ago
Cataract surgery (R) eye	6 years ago		
Deafness	4 years 7 months ago		
Hypertension	3 years 1 month ago		
TIA (Trans ischaemic attack)	2 years 11 months ago		

Current drug therapy	Date started	Previous drug therapy	Date/reason stopped
Metformin 500mg three times daily	5 years 2 months ago	Co-tenidone 50/25 daily	3 years 1 month ago/dose increase
Glibenclamide 5mg twice daily	5 years 2 months ago	Aspirin 300mg daily	?2years ago/ no reason
Co-tenidone (atenolol and chlorthalidone) 100/25 daily	2 years 11 months ago	Lisinopril 10mg daily	1 year 1 month ago – hospital recommended, never prescribed
Paracetamol 1g four times daily/when required	5 days ago	Gaviscon	No information about this
Dalteparin 5000 units once daily	5 days ago	Various antibiotics – ear/UTI	
Flucloxacillin 1g IV four times daily	5 days ago	Flucloxacillin 250mg orally three times daily	7 days ago/started by GP then changed to IV during hospital admission

Parameter	Ref range	Today	1 week ago	5 months ago
Random blood glucose mmol/L	<10	15.2	20.2	
HbA1c mmol/mol	<36 (5.5%)		92 (10.6%)	
Cholesterol mmol/L	3.5-6.5		7	
LDL cholesterol mmol/L	<3.0		5.7	
Triglycerides mmol/L	<2.0		6.25	
Creatinine micromol/L	60-120	95	140	100
Potassium mmol/L	3.5-5		3.4	
Blood pressure mmHg		165/87	170/94	
WCC x 10 ⁹ /L	4-11	12.2	15.3	
CRP mg/L	0-6 mg/L	14	28	

Date:

Patient profile

What sources of information were used to draw up this profile?

What information is provided by each section of the profile? How can this contribute to planning a patient interview?

Planning a patient interview

Group activity

Using the information and documentation provided, draw up a plan for interviewing Annie Lennox. You are ensuring that she is safe to be discharged home. Due to time constraints we will focus only on the long term management of TIA and infection of her toe.

Be prepared to present your work to the rest of the group.

Clip showing patient interview



Discussion and final thoughts

- Having used the patient notes and having interviewed the patient, are there any gaps in information?
- How would you go about trying to gather this information?

Example of patient interview plan

Medical History	Drug History	Areas to explore with patient
Infected Toe	Paracetamol 1g four times daily/when required	Determine whether patient needs pain killers at home. She is on paracetamol currently – explore whether she is taking regularly and whether she requires any further pain relief.
TIA	Drug omitted	Plan for patient to be restarted on antiplatelet e.g. aspirin with dipyridamole or clopidogrel. Explore reasons why patient was stopped aspirin 300mg 2 years ago with no reason provided. Provide patient reassurance that this will be a lower dose than 300mg.
	Drug omitted	Patient not on cholesterol lowering drug – explore if she has been on any before. Any problems? Discuss issues with her such as potential adverse effects such as muscle pain; importance of adherence; lifestyle though exercise may be a problem due to toe infection.
	Drug omitted	Look into ACEI – appears to have been recommended Lisinopril but this has never been started. Any reasons why?
Type 2 diabetes	Metformin 500mg three times daily	Check patient's knowledge. Does she know what these drugs are for? Does she take with food? Any monitoring of blood sugar levels?
	Glibenclamide 5mg twice daily	
Medicines management		Does patient cope with taking medicines at home? How does she obtain supply? Does she cope with child resistant containers, deafness, any sight problems? Does she manage to attend follow up – BP, cholesterol levels?

Interactive questions - answers

- Pharmacists can use different sources of information to obtain a patient drug history.



- Drug histories compiled by pharmacists are usually more accurate than those taken by other health care professionals

YES!!

Further resources

- Gates C, 2006. Drug History Taking – avoiding the pitfalls. Hospital Pharmacist, 13 pp98-100.
- Nester TM, Hale LS, 2002. Effectiveness of a pharmacist-acquired medication history in promoting patient safety, American Journal of Health System Pharmacy, 59 (22) pp 2221-5.



**ROBERT GORDON
UNIVERSITY ABERDEEN**

Making decisions on therapy

- Important to make informed decisions about therapy when making recommendations for an individual patient
- Involves use of evidence
- Why do we need to evaluate evidence?
How do we evaluate evidence?

Baking.....Research
What do they have in common?



Baking a cherry cake!!

- What is the aim of the exercise?
 - ✓ To make a successful bake
- What are the objectives?
 - ✓ To have a lovely finished bake which is not over cooked or undercooked
 - ✓ To make sure that the cherries are evenly distributed within the cake
 - ✓ To have a pleasantly tasting cake
 - ✓ To have a beautiful decorations on the cake

How do we achieve this?

- By following a recipe that has been tried and tested and published by a reputable baker such as Mary Berry
- <http://www.maryberry.co.uk/recipes/great-british-bake-off-recipes/cherry-cake>

Why do we follow the recipe?

- It takes us through the steps to achieve our aims and objectives
- Every step in the recipe is there for a reason but ensures that we are achieving our aim of having a lovely baked cake

Cherries need to be chopped and rinsed Why?



To ensure that they do not sink to the bottom and are evenly distributed within the cake

Sifting the flour Why?



To ensure that all rough parts remain in the sieve

Lemon grind needs to be grated Why?



**To ensure the lemony taste goes through
without tasting large pieces of rind in the
end result**

What was the initial aim?



To have a lovely bake. Has this been achieved?



- Every step of the recipe has been there for a reason and having been followed it results in achieving our initial aims and objectives.
- This is similar to the method in a research paper – this helps the researchers to achieve the initial aims and objectives regardless of what they are or what the method is.

- Following the recipe ensures that every time we bake the cake we get the same result.
- This is similar to the method within the study. The study should be reproducible and following the method rigorously will ensure this.
- Critiquing a paper involves ensuring that the appropriate method (recipe) has been used to achieve the final aims and objectives

- To achieve this there are various tools.
- It is important that we select the appropriate tool for the specific method we are critiquing.
- To help us critique in a systematic way, we can use data extraction forms.

- Task
- You are being provided with data extraction forms.
- In your groups, you will try and critique a paper that you have been provided with.

