# Foundations of Clinical Pharmacy

## Example Portfolio Items

This document includes examples of past students’ work. Each portfolio item has three examples, and the scores they received.

This document is made up of examples from many different students, from various sectors of practice.

This should be used as an illustrative guide to how you may approach the portfolio. It is not intended to be copied.

Please note that these are direct copies of past submissions. Spelling, grammar and formatting has not been changed.

### Portfolio Item 1: Reflection on current practice against the RPS Foundation Framework.

**EXAMPLE 1**

This scored 14/15.

The Royal Pharmaceutical Society framework provides all the essential skills and knowledge which a pharmacy professional should achieve. I believe I perform well in cluster 1 (patient and pharmaceutical care), 2 (professional practice) and 3 (personal practice) but there is room for improvement in cluster 4 (management and organisation) out of all 4 clusters in the framework.1

Cluster 1

As a junior clinical pharmacist, I am consistently demonstrating and improving each of the competencies in cluster 1, for instance I always review the patient in a holistic manner and use reliable evidence-based databases (e.g. BNF, Martindale and Stockley’s) as my resources whilst doing the ward round. I prioritise my tasks on the ward with regards to their urgency (e.g. asking a Dr to amend a prescription with prescribing errors in person instead of leaving a note in the Dr’s jobs book). I communicate and counsel patients in layman’s terms, which enable complex medical terms to be understood by patients without difficulty. It is also easier to tailor the best treatment if the patient understands more about their conditions and medications. Miscommunications sometimes happen when patients are transferred between care providers. I, as a pharmacist, can link up the care providers and minimise misinterpretation from what has happened by ensuring Dr to document all the medical changes on transfer of care report and organising all the appropriate follow-up appointments.

Cluster 2

Being organised and responsible for all my decisions are essential as a healthcare professional. I keep my knowledge up-to-date by attending Centre for Pharmacy Postgraduate Education (CPPE) workshops and completing a continuing professional development (CPD) cycle. Attending CPPE workshops solidifies my pharmacy knowledge whereas maintaining a CPD record can help identifying areas for improvement. I work in a multi-disciplinary team on a daily basis, and I am able to delegate tasks or refer patients to other healthcare professionals (HCPs) for advice as I understand the role of each of the HCP well. There is room for improvement in terms of providing education to other HCPs as I have less opportunity to achieve such competency. Shadowing senior pharmacists on their teaching sessions would be an option to improve.

Cluster 3

I am currently doing my medicines information rotation. The rotation helps me analyse a problem in a logical way (e.g. getting all the necessary background information, using evidence-based resources, giving out possible solutions to enquirer and tailoring the best option for the enquirer/patients). Sometimes an answer to an enquiry is required within a short period of time but by doing this enhances my ability of time management. It also assists me from choosing the most appropriate information and predicts further problems which the enquirer may encounter. Audits help identifying room for improvement. It would be a good idea for me to participate more in audits (e.g. ward safe storage audit, missed dose audit) so I can have a better understanding how my wards operate.

Cluster 4

Saving money for the NHS is one of the priorities for pharmacists and I am able to achieve and continually improve this competency by using the most cost-effective treatment for patients (as per Trust/NICE guidelines). I always ask patients to bring along their own medications so unnecessary dispensing and wastage are minimised. I also give out suggestions to Drs in terms of cost saving (e.g. switch seretide inhaler to fostair inhaler, prescribe most medications in generic instead of brands). In terms of procurement, I suggest alternatives to prescriber when there is a supply shortage of medications and ensure the ward is holding enough stock. Overall, good communication between HCPs helps me to achieve this competency. Due to the role of my current job, I have less opportunity to develop skills in terms of staff management (e.g. staff level issues) and clinical governance (e.g. writing and reviewing standard operating procedures for pharmacy services) but I believe those abilities will come with experience as my career proceeds.

| **RPS Foundation Framework** | | | |
| --- | --- | --- | --- |
| Cluster 1 Patient and Pharmaceutical Care | Cluster 2 Professional Practice | Cluster 3 Personal Practice | Cluster 4 Management and Organisation |
| * 1. Patient Consultation   2. Need for Medicine   3. Provision of Medicine   4. Selection of Medicine   5. Medicine Specific Issues   6. Medicines Information and Patient Education   7. Monitoring Medicine Therapy   8. Evaluation of Outcomes   9. Transfer of Care | * 1. Professionalism   2. Organisation   3. Effective Communication Skills   4. Team Work   5. Education and Training | * 1. Gathering Information   2. Knowledge   3. Analysing Information   4. Providing Information   5. Follow Up   6. Research and Evaluation | * 1. Clinical Governance   2. Service Provision   3. Organisations   4. Budget and Reimbursement   5. Procurement   6. Staff Management |

**EXAMPLE 2**

This scored 7/15.

**Patient and Pharmaceutical Care**

I feel that that this section of the framework is the one you are most exposed to as a junior pharmacist. When completing medicines reconciliation, I ask open answer questions. I also check understanding of patient and make sure to inform them why any medication was stopped or started. I always endeavour to use two or more sources and I always ask for patient consent. I ensure that medicines are written correctly with the right units and that we have that medication as stock. I also ensure the medication is necessary and appropriate for the patient. If it is not, I have a conversation with the doctor and discuss why it should be stopped. The rotational aspect of my job allows me to see a wide variety of patients which helps gain a more balanced view of medications. I feel that I actively contribute to patient’s wellbeing by offering advice on medication to doctors and patients. I believe that transfer of care is an area I am particularly good at, documenting changes of meds and giving clear reasons why medicines were stopped/started. I feel an area I can improve on is providing better evaluation of outcomes as I become a more experienced pharmacist. I also feel that sometimes I cannot provide the best pharmaceutical care due to time constraints.

**Professional Practice**

As a band 6 pharmacist, I understand that there will be questions that I will not be able to answer. At these times, I will ask a more senior pharmacist for their advice. Luckily, in my trust, there is a very good support system for junior pharmacists. Sometimes I struggle with my workload and do not make the best use of my time. This is an area I can improve on. I provide informal teaching sessions for my medical colleagues such as high risk drugs or appropriate pharmaceutical selection. I feel I maintain a professional appearance in my pharmacy career and my personal life. I also need to improve on my communication to express when I fell under pressure and need help

**Personal Practice**

I feel I excel at gathering information so that I can provide the best advice to doctors or patients. I also find after working for 2 years as a band 6 pharmacist, where I have gained a certain amount of knowledge and try to help other pharmacists with any knowledge I may possess. I also believe that I am good at analysing information and providing information when there is no clear cut evidence. I find that I could improve on my checking patient understanding on discharge. I also have not completed much research and this is something that I hope I can improve on as I continue with the diploma.

**Management and Organisation**

This would be my weakest area of the framework. I feel that I have an understanding of clinical governance and service provision due to my time in medicines information. I attended a talk by our high cost medicines pharmacist and I believe that I could gain a better idea of service provision from that pharmacist. I have experience of procurement due to my time in medicines information and also working as a shift working pharmacist supplying medicines to other hospitals. I would like to learn more about staff management as effective use of staff would allow work to be done more efficiently.

|  |  |  |  |
| --- | --- | --- | --- |
| **1.1** Patient consultation  **1.2** Need for the medicine  **1.3** Provision of the medicine  **1.4** Selection of the medicine  **1.5** Medicine specific issues  **1.6** Medicines information and patient education  **1.7** Monitoring medicine therapy  **1.9** Transfer of care | **2.1** Professionalism  **2.2** Organisation  **2.4** Team work  **2.5** Education and training | **3.1** Gathering information  **3.2** Knowledge  **3.3** Analysing information  **3.4** Providing information | **4.1** Clinical governance  **4.2** Service provision  **4.4** Budget and Reimbursement  **4.5** Procurement |

Table 1. RPS framework standards met for item 1

**EXAMPLE 3**

This scored 9/15.

Cluster 1: Patient and Pharmaceutical Care

I feel that I am consistently meeting the standards in cluster 1 as it is part of my daily practice as a pharmacist. I have greatly improved my consultation skills over the last year that I have been qualified and I have been trying to apply my acquired knowledge in university into practice and further improve my skills by completing the consultation skills for pharmacy practice CPPE training(1) and applying it to practice. I have developed an ability to critically assess a patients need for their medication and consequently tailor their medication to the presenting complaint whilst monitoring the patient’s ever changing needs and using relevant guidelines advising clinicians on the best course of action as the clinical picture changes. Also, as part of my role as a hospital clinical pharmacist I deal with medicines information queries on a daily basis and I am aware of the different resources at my disposal to enable me to answer such queries using evidence based medicine. However, I would like to improve my provision of healthy living advice as I have not been able to provide this kind of advice to as many patients as I would have liked due to time constraints. I also hope to improve my knowledge and skills by completing the Clinical and Health Services Pharmacy Diploma.

Cluster 2: Professional practice

I feel that I usually meet the standards in cluster 2 that are relevant to my job role. I believe that I am very professional and that I instil confidence in all my patients and other healthcare professionals that I have worked with and I have occasionally surprised some clinicians when I have informed them that I have only been qualified for 1 year. I also believe that I am very organised and able to prioritise my work and communicate appropriately with patients and health care professionals ensuring that I provide information at an appropriate level depending on the recipient’s prior knowledge. I believe I am an active member of the multidisciplinary team and respect the roles of all members of the team. As a recently qualified pharmacist I feel that my job does not involve a great deal of education and training. However, I have been shadowed by several pre-registration students and undergraduate students and I have always been able to teach them and maintain their interest and help them identify their training needs. Nevertheless, I feel that education and training is an area of cluster 2 that I can improve on and I will gain further knowledge and expertise and improve in this field as I take on more responsibilities and gain a more senior position in the future.

Cluster 3: Personal Practice Competencies

I believe that I have the ability to gather the required information to enable me to answer most queries. I have also been praised in the past over my ability to critically evaluate information I find or have been presented with, and during my time in university I was an NHS Evidence student champion where I learnt about evidence based medicine and how to critically evaluate evidence and since then I have tried to improve and use this knowledge on a regular basis. Also, as part of my day to day job I provide information to healthcare professionals and patients at an appropriate level for the recipient. Therefore, I believe I perform strongly in this area and with more contact and experience I will be able to refine these skills further. However, due to my job role and time constraints I have been unable to participate in research and development of standard operating procedures and policies although this is something I would like to participate in the future. I would also like to further improve my knowledge of medicines, through experience and by completing the Clinical and Health Services Pharmacy Diploma.

Cluster 4: Management and organisation competencies

I continuously follow standard operation procedures and I have reported relevant incidents through the trust incident reporting system. However, my job does not involve most of the competencies in this cluster although I am aware of the importance of these competencies and appreciate the importance of cost effective treatments and the ability to manage work force appropriately. I follow trust policies and encourage adherence to trust prescribing recommendations and I hope that I will be able to develop these skills and meet these competencies through my diploma and once I take on a more senior role.

RPS Foundation Framework Mapping

|  |  |  |  |
| --- | --- | --- | --- |
| Cluster 1: Patient and Pharmaceutical Care | Cluster 2: Professional Practice | Cluster 3: Personal Practice | Cluster 4: Management and Organisation |
| Standards met: | Standards met: | Standards met: | Standards met: |
| * 1. Patient Consultation   2. Need for the Medicine   3. Provision of Medicine   4. Selection of the Medicine   5. Medicine Specific Issues   6. Medicines Information and Patient Education   7. Monitoring Medicine Therapy   8. Evaluation of Outcomes   9. Transfer of Care | 2.1 Professionalism  2.2 Organisation  2.3 Effective Communication Skills  2.4 Team work  2.5 Education and Training | 3.1 Gathering Information  3.2 Knowledge  3.3 Analysing Information  3.4 Providing Information  3.5 Follow up | 4.1 Clinical Governance |

### Portfolio Item 2: Consultation Skills for Pharmacy Practice.

Insert a screen shot of your certificate, as below.



### Portfolio Item 3: Medication History

**EXAMPLE 1**

This scored 14/15.

Context

Ms JL, 84, presented to hospital with shortness of breath (SOB) and purulent sputum.

Past Medical History (PMH): Chronic Obstructive Pulmonary Disease (COPD) [2010], Hypertension [2006], and Atrial Fibrillation (AF) [2012]. She also admitted to occasional constipation.

Social History (SH): She lives alone, is independently mobile, and smokes approximately 10 cigarettes a day.

I was the ward Pharmacist who took the medication history, and performed medicines reconciliation.

Clinical Skill

I approached Ms JL and introduced myself, explaining that I wished to have a chat about her usual medication. I asked if I could access her SHR (the electronic system where we can see GP issued medications) to aid us in our conversation. She consented to this. She had also brought her own medication into hospital with her (PODs). I asked Ms JL to tell me what medication she took on a daily basis and when. I checked this against the PODs and her GP list. I find this process easily highlight issues with compliance and understanding. She did not mention her lactulose or salbutamol inhaler; I checked if she was still using these. She said she was but had not mentioned them as she did not use them every day.

Ms JL’s regular medications, with assessment of concordance, are presented in Table 1.

**Table 1: Medication history for Ms JL**

| **Medication** | **Dose** | **Indication** | **Source** | **Reported concordance** |
| --- | --- | --- | --- | --- |
| Diltiazem (Dilzem®) 60mg M/R Capsule | 60mg BD | AF and hypertension | Patient, GP, POD | Did not report any missed doses. Supply brought into hospital suggests using as prescribed. |
| Lactulose liquid | 10-15ml BD PRN | Constipation | Patient, GP | Takes when required, but for multiple days. Aware most effective when used regularly |
| Ramipril 10mg Capsule | 10mg OD | Hypertension | Patient, GP, POD | Did not report any missed doses. Supply brought into hospital suggests using as prescribed. |
| Salbutamol 100mcg MDI | 2 puffs PRN | COPD | Patient, GP, POD | Uses when required. Had been using frequently in week preceding admission. |
| Seretide® 250 MDI | 1 puff BD | COPD | Patient, GP, POD | Did not report missing doses, or barriers to taking. Aware of steroid component and washes mouth out after using |
| Tiotropium 18mcg DPI | 18mcg OM | COPD | Patient, GP, POD | Did not report any missed doses. Supply brought into hospital suggests using as prescribed. |
| Warfarin | Daily at teatime. 3mg Monday, Tuesday, Thursday, Friday, Sunday. 2mg Wednesday and Saturday. | Anticoagulation in AF | Patient, GP, POD, Anticoagulant book | Last appointment 07/10/15 INR 2.6, next appointment 10/12/15.  Patient reported taking warfarin, and INR was therapeutic on admission. |

On questioning Ms JL denied purchasing any over the counter medicines, or using any eye drops or creams. She stated that she had taken 3 courses of antibiotics and steroids in the last 3 months; most recently Prednisolone 30mg OM and Amoxicillin 500mg TDS prescribed for 7 days, but had only completed 2 days of treatment prior to admission. She does not receive any medicines, including injections, from clinics other than her GP, but recalled having the seasonal influenza vaccine in October.

Ms JL informed me that she did not have any allergies or intolerances to medicines or other products. However, her GP summary listed intolerances to verapamil, aspirin, co-codamol, and picolax. On further questioning Ms JL did recall having taken all of these medicines. She could not remember having a reaction to verapamil or aspirin and thought they had been discontinued in favour of other treatment options. She remembered vomiting after taking picolax, and becoming constipated and confused with co-codamol. She stated she was ‘fine’ taking paracetamol alone. I documented these allergies and reactions on the drug chart.

For this medication history my main source was the patient, this was supported by her PODs and SHR. It would not be appropriate to use the patient alone for a medication history, as even with thorough questioning information may be missed due to unintentional omissions.

From the information gathered through thorough medication history taking I was able to ensure all Ms JL’s existing medications were continued, where appropriate. I noticed that the admitting doctor had prescribed a Seretide Accuhaler in place of the existing Evohaler. I advised the ward doctors of this and it was amended to her existing treatment following her inhaler technique being checked. I was also able to provide accurate information regarding recent steroid use, which led to Ms JL receiving a reducing dose of steroids after the course initiated during the admission for an infective exacerbation of COPD.

Reflection

I feel that this medication history went well, and I was able to gather relevant information easily. I introduced myself to the patient clearly, and explained the purpose of our discussion. I asked for her consent before accessing her SHR, in line with policy. Ms JL seemed knowledgeable about her medication; she was able to tell me how she took it, and what it was for. This led me to believe she was a reliable source of information about her medication. I did not have any concerns about her ability to cope with her medication at home, but would revisit this if she was started on a lot of new medication during the admission.

| **RPS Foundation Framework** | | | |
| --- | --- | --- | --- |
| Cluster 1 Patient and Pharmaceutical Care | Cluster 2 Professional Practice | Cluster 3 Personal Practice | Cluster 4 Management and Organisation |
| Patient Consultation  Need for Medicine  Provision of Medicine  Selection of Medicine  Medicine Specific Issues  Medicines Information and Patient Education  Monitoring Medicine Therapy  Evaluation of Outcomes  Transfer of Care | Professionalism  Organisation  Effective Communication Skills  Team Work  Education and Training | Gathering Information  Knowledge  Analysing Information  Providing Information  Follow Up  Research and Evaluation | Clinical Governance  Service Provision  Organisations  Budget and Reimbursement  Procurement  Staff Management |

**EXAMPLE 2**

This scored 14/15.

**Medication History:**

Patient P.A. attended her local community pharmacy at which I was the Responsible Pharmacist (RP), to order her medication through our Repeat Prescription Collection Service. During this process, clinically, I identified a drug related problem and with written consent by the patient, conducted a prescription intervention ‘Medicines Use Review Service (MUR).’ I justified this professional decision because I was able to make recommendations to her prescriber relating to clinical effectiveness of treatment1 and make medicines optimisation part of my routine practice2.

Using the Principles of effective communication, adopting a patient-centred based approach and applying the Calgary-Cambridge Guide3 during the prescription intervention MUR I was able to consider the drug-related problems, choose an appropriate action, achieve a shared understanding with the patient, involve the patient in their management and establish a relationship4, consequently, I obtained the following; also see tables 1 and 2 on the following pages:

**Age:** 49

**Gender:** Female

**Weight:** 18stone 17lbs

**Height:** 5feet and 4inches

**BMI:** 44

**Past Medical History:** Hypertension, Obese, Inflammatory Bowel Syndrome (IBS).

**Surgery History:** Removal of Cyst at lower back left region.

**Social history:** Housewife, married, 3 children, living with husband, limited walking. Enjoys watching TV, going cinemas, dining out. Non-smoker, does not drink.

*Table 1: Medication history:*

|  |  |  |  |
| --- | --- | --- | --- |
| **Name of medication** | **Dose/Frequency** | **Route of administration** | **Other comments** |
| Amlodipine 10mg tablets | Take one once daily | Oral | Prescribed, on repeat slip and Patient Medication Record (PMR) system |
| Aspirin 75mg dispersible tablets | Take one once daily | Oral, dissolved in water | Prescribed, on repeat slip and PMR system |
| Simvastatin 40mg tablets | Take one once at night | Oral | Prescribed, on repeat slip and PMR system |
| Buscopan IBS Relief tablets | Take one tablet three times daily | Oral | \*Non-prescribed, usually purchased Over-the-Counter (OTC) when required  -Identified through patient consultation |
| Nytol One-a-Night tablets | Take one at night when required | Oral | \*Non-prescribed, usually purchased OTC when required  -Identified through patient consultation |

\*No other non-prescribed remedies/self-treated medication

\*No known Allergies or Intolerances

*Table 2: Example of some responses to the questions during Prescription Intervention MUR:*

|  |  |
| --- | --- |
| **Questions asked to patient P.A.** | **Responses/comments by P.A.** |
| How are you getting on with your medicines?5 | Fine, no issues  -Patient measures blood pressure every week with home device and is within target i.e. 134mmHg/26mmHg |
| How do you take or use each of these medicines?5 | No issues, patient responded by explaining the exact number of tablets she takes and the frequency at which she takes them.  For Example: One tablet of simvastatin 40mg tablet once at night |
| Are you having and problems with your medicines, or concerns about taking or using them?5 | No issues |
| Do you think you are getting any side effects or unexpected effects?5 | No issues  -Patient has no side-effects and said she feels fine, on checking with her, she has had an annual review with the GP which includes blood tests and they have all come back normal. However, patient is due an annual review for this year according to the printed information on her repeat slip. |
| People often miss taking doses of their medicines, for a wide range of reasons. Have you missed any doses of your medicine, or changed when you take it?5 | No issues  -Patient is always prescribed 28day supplies, however, a week before running out of her supply, she will request for her medication as she has done today.  -On analysis of the PMR system she has been attending this pharmacy consecutively for 17months without any gaps/breaks. Additionally, I checked her emergency supply record and it shows that she has never had an emergency supply. We can infer from this that the patients concordance is very good |

Table 2 shows the responses for questions 2 and 5 consolidating an accomplished concordance between P.A. and her medication.

My main sources of information were the Patient, PMR and Repeat Slip. The patient had no medical illnesses meaning I trusted her information provided as a primary source. I was able to consolidate the medical information from my primary source by using the PMR and the Repeat Slip as a back-up check. The medication information I obtained from these coincided with one another and there were no anomalies in the data I was able to extract from these secondary sources of information. The PMR and Repeat Slip could not provide any information based on the patients non-prescribed remedies, allergies, intolerances and/or OTC medicines. However, I was able to obtain this information from the Patient.

The medication history contributed positively to affecting the overall care of the patient. The patient was taking Simvastatin 40mg with Amlodipine despite the drug interactions associated with increased risk of Myopathy6. After consulting with the prescriber, Simvastatin 40mg was replaced with Simvastatin 20mg. Other outcomes included diet modification and free exercise classes at the local community centre.

**Reflection:**

I think what went well was how I confidently was able to adopt my new techniques that I learnt from the Clinical Pharmacy Skills combined with my own skills and practice. The Calgary-Cambridge Guide and principles of effective communication made my consultations more relaxed and engaging.

I think what went less well was the time consumed. I found it difficult to balance out between the time needed to accurately conduct the clinical skill and the pressures of the tasks that were awaiting me at the dispensary. I felt I may have taken too long to obtain the necessary information.

I would approach the skill differently in the future by using the ‘Blank Patient Profile’ resource found in the Clinical Pharmacy Skills module. I will use this as a quick reference guide to keep me on track on the information I want to be extracting and recording. I feel I have conducted a good job at this particular skill and with some improvements will have the ability to apply this technique flexibly and specifically.

| **RPS Foundation Framework** | | | |
| --- | --- | --- | --- |
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| * 1. Patient Consultation   2. Need for Medicine   3. Provision of Medicine   4. Selection of Medicine   5. Medicine Specific Issues   6. Medicines Information and Patient Education   7. Monitoring Medicine Therapy   8. Evaluation of Outcomes   9. Transfer of Care | * 1. Professionalism   2. Organisation   3. Effective Communication Skills   4. Team Work   5. Education and Training | * 1. Gathering Information   2. Knowledge   3. Analysing Information   4. Providing Information   5. Follow Up   6. Research and Evaluation | * 1. Clinical Governance   2. Service Provision   3. Organisations   4. Budget and Reimbursement   5. Procurement   6. Staff Management |

**EXAMPLE 3**

This scored 5/15.

A medication history was taken from a 74-year-old female who came into the pharmacy for an annual Medicine Use Review (MUR); a service that allows a structured adherence-centred review for patients generally with long term conditions1. The patient’s medication record (PMR) at the pharmacy was the main source I used to gather the majority of the information from along with speaking to the patient. This lady had a ST elevated myocardial infarction in August 2014 and was started on a number of medications in accordance with NICE guidance2 including: a statin (atorvastatin 80mg tablets at night), dual anti-platelet therapy (aspirin 75mg dispersible tablets once daily and ticagrelor 90mg tablets twice daily), a beta blocker (bisoprolol 2.5mg tablets once daily) and an Angiotensin Converting Enzyme (ACE) inhibitor (ramipril 1.25mg capsules at night). She was also started on lansoprazole 15mg capsules once daily for gastro protection3. Since the coronary event, a number of changes have occurred to her medicines including a reduction in the atorvastatin dose in December 2014 to 40mg due to severe leg cramps. This reduction in dose helped but she still suffered from these side effects and was switched to pravastatin 20mg in April 2015. Upon her annual medication review in August 2015 a number of further changes were made and blood tests were taken. Ticagrelor was stopped as the license for this medication is for up to twelve months after the acute coronary event3. The dose of pravastatin was increased to 40mg as her cholesterol had increased and the dose of bisoprolol was increased to 3.75mg. The lansoprazole was also stopped as she was no longer on dual anti-platelet therapy.

I conducted the MUR and discussed her current medication with her. She did not have any allergies to any food or medicines. Apart from the issues she has had with atorvastatin, she has not had any other issues with any over the counter medication or other medicines. She also purchases omega-3 oils and takes one of those every day. Her current medicines were: aspirin, bisoprolol, ramipril and pravastatin. When conducting the MUR, it was quite evident that the patient had excellent knowledge on her medicines and was clear of their importance in reducing the chances of having another heart attack. She told me that she took her aspirin and bisoprolol in a morning and ramipril and pravastatin at night. She was in a good routine with her medicines and I could see from the PMR that the lady does collect her repeat prescription on a monthly basis. I also gave advice on how diet and lifestyle can affect her health including salt reduction, alcohol and caffeine reduction and about smoking cessation2.

Carrying out this medication history allowed me to review a patient who had had a heart attack more than a year ago. I could look at the changes that have been made to her medicines, especially after the first twelve months and review the up to date NICE guidance for clarification on the correct protocol for ST elevated myocardial infarctions2. I could explain to the lady about the reasoning behind the changes and the importance of continuing her current medicines. However, in order to enhance my learning further I would like to refresh my knowledge on other coronary events such as strokes.

| **RPS Foundation Framework** | | | |
| --- | --- | --- | --- |
| Cluster 1 Patient and Pharmaceutical Care | Cluster 2 Professional Practice | Cluster 3 Personal Practice | Cluster 4 Management and Organisation |
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### Portfolio Item 4: Providing information or advice to a patient

**EXAMPLE 1**

This scored 15/15.

1. Context

|  |  |
| --- | --- |
| Background Info | |
| Patient details: | Mrs CP, 75yrs, female |
| PC: | SOB, chest pain |
| PMH: | Depression, Hypertension |
| Medication History: | Lisinopril 10mg OD, Mirtazapine 45mg ON |
| Diagnosis: | CTPA confirmed Pulmonary Embolism |
| New treatment: | Warfarin |

My role in the scenario

I was the ward pharmacist on duty when I was approached by the junior doctor to inform me that Mrs CP’s CTPA results had returned confirming a Pulmonary Embolism (PE) and therefore, she was going to be started on warfarin. Background information regarding Mrs. CP can be found in *Table 1*.

Following the clinical check for appropriateness and safety, my priority was to counsel the patient on its use. When counselling on a drug, it is important we establish the individual needs of our patients and adapt our communication skills accordingly, as set out in CPPE’s *Consultation Skills for Pharmacy Practice* (2). In order to do so, I asked Mrs CP’s nurse about the patient’s communication needs, with regards to barriers such as deafness, language, dementia and if they were independent in the home. The nurse told me Mrs CP is deaf in her left ear and the doctors have a suspicion she has early-onset dementia but her husband helps her in the home with her medicines. Conveniently her husband was present for the consultation.

2. The Communication Skill

I largely applied the Calgary-Cambridge model (3) to the consultation to give me a structured approach, but adapted it for my role as a pharmacist in providing the patient with the necessary information. Before initiating the consultation I ensured it was a safe and confidential environment by pulling the curtain around the patient and her husband. I greeted Mrs CP and introduced myself and explained the nature of the interview, and with agreed consent we began the consultation. I made sure to sit at her right hand side so that she could hear me with her ‘good ear.’

Before providing the counselling points on the new medicine, I tried to understand Mrs CP and her husband’s current understanding of Warfarin and their expectations for our discussion. It provided me with an opportunity to gauge Mrs CP’s autonomy, the extent to which her husband is involved in her care and also to recognize the patient’s comprehension of her condition so I knew what language to use in the conversation and not repeat what she had already been told.

I attentively listened without interrupting, to understand and acknowledge the patient’s agenda, and soon understood that Mrs CP was compos mentis but also that Mr P. was clearly very involved in the care of her medication so I included him in the conversation, building rapport with them both.

With an open questioning technique, I enquired Mrs CP’s compliance with her own medicines at home. I facilitated the patient’s response with use of positive body language and eye contact, and with the help of her husband, the patient informed me that she has become very forgetful lately and when her husband is not at home, she forgets to take her medicines. I showed empathy and respect for her reasons for non-adherence in a non-judgemental manner, and discussed ways which might aid her in remembering, such as placing her medicines beside her bed or by her toothbrush, or possibly changing the regimen to a time of day when her husband is at home.

To organise the information I was going to provide about warfarin and not leave any important counselling points out, I used the NPSA yellow Warfarin booklet (4) in a systematic approach and discussed the information outlined in *Table 2.* I explained each point clearly and concisely, leaving time and space in between each piece of information to allow Mr and Mrs. P. to ask questions and take in what I had just explained.

|  |  |
| --- | --- |
| Counselling Points | |
| What is it? | - Warfarin is an oral anti-coagulant used to prevent harmful blood clots in the blood vessels |
| Duration of Treatment | - At least 3 months, but long-term anticoagulation may be required |
| How to take? | - Take once a day at the same time each day |
| - If you miss a dose, take as soon as you remember but do not double up doses |
| - If by accident you take a dose that greatly exceeds your normal dose, contact your anticoagulant clinic |
| - You may be given different strengths of tablets and each strength is a different colour |
| - Here at UHSM, we dispense 1mg tablets which are brown – you have been dispensed |
| Monitoring | - You must have a regular blood test called an INR (International Normalised Ration) test. This measures how long your blood will take to clot. |
| - Normally our blood has an INR of 1, but your target INR will be 2-3. |
| - The dose of warfarin that will be prescribed will be altered according to your INR. |
| - Initially this will be quite regularly and once your INR is stable it will be monthly. |
| The Clinic | - You will attend the anti-coagulant clinic have your blood tests |
| - Let the clinic know about any new/discontinued medicines |
| Repeat prescriptions | - When picking up new prescriptions you will be asked to provide information about your latest INR test and the dose prescribed, which will be documented in your yellow book. |
| Serious side effects | If you experience any of the following, seek medical attention immediately: |
| - Prolonged nosebleeds |
| - Blood in vomit, sputum, urine, faeces, (black faeces) |
| - Severe/spontaneous bruising |
| - Unusual headaches |
| Dentist | - Before going to the dentist, let them know you are on warfarin |
| OTC | - If buying drugs over the counter, let the pharmacist know you take warfarin |
| - Do not take aspirin unless specifically advised by your doctor |
| Diet | - Foods rich in vitamin k can affect your INR (green leafy veg, chick peas, liver, |
| egg yolk, wheat bran and oats, mature cheese, blue cheese, avocado, olive oil |
| - You can eat these foods but in MODERATE amounts |
| - Avoid cranberry juice |
| Alcohol | - Do not exceed national guidelines, Up to 2 units a day for a woman |
| Compliance | It is VITAL you continue to take this medicine and don’t miss any doses. |

**Table 2.**

As outlined in *Consultation Skills for Pharmacy Practice*, I negotiated a shared understanding with Mrs CP with regards to her use of warfarin, contraindicated food and medicines, and in particular compliance, by suggesting certain aids that are useful to enhance compliance with the warfarin. I felt it empowered Mrs CP to take responsibility of her own health.

Before concluding, I determined whether the patient had sufficient information or whether they required further explanation (2), but she and her husband were satisfied that they understood warfarin and its’ use and thanked me for the very clear explanation I gave.

I provided the printed booklet to supplement the information I gave verbally and also referred the patient and her husband to the New Medicines Service run by their local community pharmacy, whereby the pharmacist would discuss any new concerns they had regarding warfarin, or reiterate any information they had forgot in the coming days.

3. Reflection

Overall I was pleased with the consultation as I felt we had an outcome in which both the patient and I achieved our respective aims. I felt I was good at adapting my skills to the individual’s needs, and building rapport through maintaining a non-judgemental attitude when discussing compliance issues, which in turn had a positive impact on the patient desiring to take responsibility for their own health. I also felt I succeeded in using language that was appropriate to the patient and her husband which helped them understand how to take warfarin and the problems that can arise, promoting Mrs CP’s safety.

However, the consultation took me 25-30mins which put me in time pressure for completing the rest of the ward. I felt this was due, in part, to the open questions I was asking with regards to the patient’s management of her medicines at home, as it allowed the patient to start telling quite a long story. I also felt

In the future when counselling a patient on warfarin I am going to do the consultation at a separate time to conducting the medicines use review and compliance assessment, because I feel I may have information overloaded the patient. Upon reflection of this scenario, I returned to the patient the next day and briefly re-capped the warfarin counselling points and checked the patient had a comprehensive understanding.

As part of my rotation assessment, I asked my rotation lead to observe the consultation and provide feedback on how she felt I performed, using the *‘Medication-related Consultation Framework’* as seen in Appendix A. She stated that I was very confident, friendly and built good rapport with the patient, I provided clear instructions on the use of warfarin and involved the patient in their own care, but similarly to my own reflection, she felt I could speed up the counselling process slightly by asking open questions that don’t necessarily allow the patient and their carer to go off on a tangent.

Table 3 demonstrates what areas the communication skill discussed can be mapped to the RPS Foundation Pharmacy Framework.

|  |  |  |  |
| --- | --- | --- | --- |
| CLUSTER 1: PATIENT AND PHARMACEUTICAL CARE | CLUSTER 2: PROFESSIONAL PRACTICE | CLUSTER 3: PERSONAL PRACTICE | CLUSTER 4: MANAGEMENT AND ORGANISATION |
| Standards met: | **Standards met:** | **Standards met:** | **Standards met:** |
| Patient Consultation  Need for the medicines  Provision of medicines  Selection for the medicine  Medicines specific issues  Medicines Information and Patient Education  Monitoring Medicine therapy  Evaluation of Outcomes | Professionalism  Organisation  Effective Communication skills | **3.1** Gathering information  **3.2** Knowledge  **3.4** Providing Information | **4.2** Service Provision |

**EXAMPLE 2**

This scored 11/15.

**Age**: 21

**Gender**: Male

**Past Medical history**: None

**Social history**: Smoker

**Surgical history**: None

**Medication history:** OTC antihistamine - Loratadine 10 mg tablets – 1 daily for seasonal allergy.

**Allergies:** Penicillin allergy (widespread rash on trunk)

**Role:** Responsible pharmacist conducting New Medicines Service (NMS) consultation

Mr CD is a 21 year old patient recently prescribed Ventolin 100 mcg/evohaler 1-2 puffs up to four times daily when required, Clenil modulite 100 mcg inhaler 2 puffs twice daily. The PMR highlighted the patients’ eligibility for a NMS consultation. This service is for the patient’s newly diagnosed asthma. This service was initiated to improve patient adherence.

A NMS consultation was conducted with the patient upon dispensing the medication. I initiated the consultation by greeting the patient and introducing myself. I established the patients’ baseline level of knowledge by asking the patient whether he has used any inhalers before. This is important to determine as patients have different levels of understanding. Furthermore, I utilised a placebo inhaler in the consultation room to demonstrate the appropriate use. This is important as some patients are better visual learners and may have difficulty understanding English. I used clear and simple English, avoiding jargon and medical terminologies. I also gave the patient key information on the correct usage of the medication. This was to prevent overcomplicating the message shortly after diagnosis, resulting in patient rejecting information given and reduces compliance and concordance.

I counselled the patient on the following point’s. The medication usage, explaining that the blue (Ventolin) inhaler is his reliever inhaler used during an acute asthma attack or prior to exercising. The brown inhaler (Clenil) is the preventer required to be used twice a day to prevent an attack by reducing narrowing of the airways. I highlighted the colours of the inhaler for the patient to allow quick understanding as often patients recognise their medication by the colour. I then explained to the patient how to use the inhaler by demonstrating all the steps using a placebo inhaler. Subsequently, I highlighted the main side effects of the inhaler in particular the steroid inhaler, reassuring the patient that most medicines have side effects for example oral candidiasis. These are often preventable by correct inhaler technique and by rinsing the mouth or brushing the teeth after inhaler. I also explained the storage and cleaning instructions of the inhalers. Finally I issued the patient with an asthma pack for further information and re-enforcement of the information provided at the consultation. Finally, I gave the patient the opportunity to ask questions to gage understanding. This is very important to clarify understanding and prevents confusion increasing adherence. The patient stated he was happy with the information provided but would like to ask a few questions.

1. What caused my asthma?
2. When can I stop using my inhalers?

I explained to the patient that asthma can be triggered by various things such as smoke inhalation, stress, perfume smells and dust. I used this opportunity to signpost him to our smoking cessation service. I also explained to the patient that once his asthma symptoms are under control he will be maintained on the minimum number of inhalers at the lowest effective dose. The doctor or asthma nurse would review the need for the inhalers and reduce the dose slowly over 3 months. I summarised all the information to the patient to increase retention and ensure patient understanding assuring the patient I would be undertaking a further telephone consultation within 7-14 days. A fortnight later I contacted the patient introducing myself and I asked the patient the following questions:

1. How are you getting on with your new medicines?
2. Do you know why you are using each inhaler and their differences?
3. How often and when do you use each inhaler?
4. Are you experiencing any side effects from your new medicines?
5. When is your next review with the doctor/asthma nurse?
6. Lifestyle changes: do you still smoke?

The patient informed me he has stopped smoking and hasn’t had an asthma attack in two weeks.

**Reflection**: I have tailored the information provided to the patients’ needs by not overloading the patient with factual information. This could be gained from the asthma pack provided. I communicated clearly with the patient highlighting the usage, storage and side effects of each inhaler and backed this up by referring the patient to the asthma UK website for further clarification.2 I believe in the future I could improve patient counselling on new medicines with patient information leaflets to highlight the necessary information. In future consultations of asthmatics I would also arrange a face to face follow- up to allow checking of correct inhaler technique.

| **RPS Foundation Framework** | | | |
| --- | --- | --- | --- |
| Cluster 1 Patient and Pharmaceutical Care | Cluster 2 Professional Practice | Cluster 3 Personal Practice | Cluster 4 Management and Organisation |
| * 1. Patient Consultation   2. Need for Medicine   3. Provision of Medicine   4. Selection of Medicine   5. Medicine Specific Issues   6. Medicines Information and Patient Education   7. Monitoring Medicine Therapy   8. Evaluation of Outcomes   9. Transfer of Care | * 1. Professionalism   2. Organisation   3. Effective Communication Skills   4. Team Work   5. Education and Training | * 1. Gathering Information   2. Knowledge   3. Analysing Information   4. Providing Information   5. Follow Up   6. Research and Evaluation | * 1. Clinical Governance   2. Service Provision   3. Organisations   4. Budget and Reimbursement   5. Procurement   6. Staff Management |

**EXAMPLE 3**

This scored 8/15.

Whilst on the ward I counselled a patient newly started on warfarin, the patient was a little bit agitated at the time and didn’t seem to be taking all of the information in. Therefore I decided to cut the warfarin counselling down to the key points about the variable dosing depending on his INR, to report signs of bleeding and bruising immediately, not to take NSAIDs, to keep diet stable and to inform all health care professionals that he is taking warfarin. I did not go into a lot of detail about each counselling point as I felt the patient wouldn’t be able to retain all of the information and wanted to make sure he understood the most important points. I gave him a yellow book and advised him to read it and ask any questions when he came for his clinic appointment.

During the counselling I felt that the patient was comfortable speaking to me, although he kept going off topic and telling me about his past, which worried me as I was concerned that he wasn’t taking in the information. As he kept wanting to discuss other topics I kept having to bring the conversation back to warfarin, I think I achieved this without upsetting the patient, but the distraction often left me confused about where I was up to and what I had said.

Overall I did a good job of tailoring the information provided to meet the patients need, as if I had given him all the information about warfarin it would have been too much for him to remember, therefore I cut the counselling down to the key points. I also managed to get back on track well when the patient was going off topic. However this did leave me slightly distracted, and I didn’t get chance to recap the information provided or ask if the patient had any questions. I was also unable to gauge whether the patient had fully understood the information provided.

To improve I need to ensure that I fully recap the information with the patient, making sure I summarise key points and ask them to repeat the information back to me to make sure they have fully understood. I also need to allow the patient to ask any questions they may have.

If a similar situation arose in the future I would make sure that I recap all information and provide the patient with an opportunity to ask questions. If a patient doesn’t appear to be taking information in in the future I will try and go and see the patient again later in the day, to check whether they have retained the information provided and to see if they have any questions.

|  |  |  |  |
| --- | --- | --- | --- |
| **Cluster 1 Patient and Pharmaceutical Care** | **Cluster 2 Professional Practice** | **Cluster 3 Personal Practice** | **Cluster 4 Management and Organisation** |
| Standards met: | Standards met: | Standards met: | Standards met: |
| 1.5 Patient Consultation  1.5 Medicine Specific Issues  1.7 Medicines Information and Patient Education  1.8 Evaluation of Outcomes | 2.1 Professionalism  2.3 Effective Communication Skills | 3.2 Knowledge  3.4 Providing Information |  |

Table 2: Standards met for portfolio item

### Portfolio Item 5: Medication Error.

**EXAMPLE 1**

This scored 14/15.

An 84 year old female who lives alone (NIL alcohol or smoking) was admitted with a urinary tract infection to the admissions ward where I am the ward pharmacist. The patient had a history of hypertension and atrial fibrillation (AF) for which she was prescribed the medications in table 2.

|  |  |  |  |
| --- | --- | --- | --- |
| Medication | Dose | Route | Frequency |
| Warfarin  Target INR 2.5 (2-3) | 2mg and 3mg alternate days | PO | Evening |
| Bisoprolol | 2.5mg | PO | OM |
| Amlodipine | 10mg | PO | OM |
| Ramipril | 5mg | PO | OM |

Table 2: medication history confirmed for patient involved in medication error. No allergies or OTC medications confirmed.

During the medicines reconciliation process I realised that the patient had been concomitantly prescribed dalteparin 5000 units daily and warfarin on the electronic prescribing system. On consultation the patient showed me her yellow book which gave a recent international normalised ration (INR) of 2.7 from two days previously. I confirmed her weight to be 56kg, eGFR>90ml/min and her blood results normal except for raised white cell count, neutrophils and C-reactive protein attributed to her infection. According to local guidelines dalteparin 5000 units is prescribed for venousthromboembolism (VTE) prophylaxis in appropriate patients or for treatment of VTE in patients <40kg and is not required in patients already therapeutically anticoagulated. I spoke to the doctor responsible who was not aware that patients therapeutically anticoagulated with warfarin did not require prophylactic dalteparin as he had intentionally prescribed dalteparin for VTE prophylaxis. I explained that dalteparin for VTE prophylaxis is not required in patients receiving therapeutic doses of warfarin as this is considered therapeutic duplication and there is an increased risk of minor and serious haemorrhage which could be severe, particularly in the elderly.8 I also took this as an opportunity to discuss other anticoagulants, including new oral anticoagulants (NOACS), which he may have been less familiar with. I advised the prescriber to cease the dalteparin as it was due that evening, which he did immediately priot to administration, and to fill out an error report as per policy, assuring him that this was anonymous and others could learn from the incident. As one of my pharmacy colleagues was due to do a medicines safety presentation for the junior doctors I suggested that they could include this scenario in their presentation to disseminate the information to the wider group.

**Reflection**

I believe that my actions were appropriate in that I gathered sufficient information to appropriately assess my patient before constructively questioning the rationale of the prescriber. Although our electronic prescribing system allows pharmacists to block administration of medication to prevent serious harm I did not consider this necessary as this may have undermined the prescriber who amended his error promptly. I fed back appropriately the potential risks of this error while providing additional information on other similar drugs which he may come across in future. By filling out an error report online he could personally reflect on his error while feeding this back to my pharmacy colleague was an ideal opportunity to avoid similar mistakes on a wider scale.

| **RPS Foundation Framework** | | | |
| --- | --- | --- | --- |
| Cluster 1 Patient and Pharmaceutical Care | Cluster 2 Professional Practice | Cluster 3 Personal Practice | Cluster 4 Management and Organisation |
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**EXAMPLE 2**

This scored 10/15.

**Patient age**: 55

**Gender**: Female

**Medical history**: N/A

**Social history**: N/A

**My Role:** Responsible Pharmacist

**Medicine history:**

Patient takes following medications

1 ) Dispersible Aspirin 75mg tablet, one in morning

2 ) Atorvastatin 40mg tablet , one at night

3)Isosorbide mononitrate 6omg MR tablet ,one every morning

The patient brought in her monthly prescription of all medications from doctor. Along with the medication mentioned above there was another item on the prescription which was **Adalat LA 120mg** **tablet** which was prescribed one tablet twice a day by doctor. The dispenser processed and dispensed all items on the prescription and presented to me to get final check. During clinical check of the prescription I spotted that Adalat LA 120mg tablet was prescribed twice a day. Actually it is long acting tablet that should be prescribed once daily dose. Then I checked in BNF under dosage of Adalat tablet there was no such indication mentioned in which the tablet can be prescribed to take twice daily. I explained to the patient about that tablet dosage. She was getting a bit panic about it, but I explained her that if she take a seat I will personally get in touch with her GP and discuss this matter then she was satisfied.

After that I ring the GP that was only next door and explained him about the dosage of Adalat LA 120mg tablet. I mentioned him that in BNF there is no such indication in which this tablet can be prescribed to take twice a day, as it is a LA(Long acting) tablet it is formulated to release the drug in the tablet in 24hour time period. GP checked the BNF and agreed with me. He said that he will write a new prescription with the correct dosage instruction on it and thanked me.

After conversation with GP I went to patient and explained her about my conversation with doctor. We got a new prescription with Adalat 120mg LA tablet with instructions of to “Take TWO tablets together in morning”, which was dispensed and given to patient

To use it. That patient also thanked me that I played my role from spotting the error to getting in touch with her GP and till final stage of getting it resolved and finally handing out the medication with correct dosage to the patient to use it safely.

**Reflection:**  As responsible pharmacist I learned how important it is to spot the clinical error in prescription for safety of a patient. As a pharmacist I should be very up to date regarding my clinical knowledge of medicines. This is one of key role of a community pharmacist, and one of the reasons to be trusted by patient. Good feedback from doctor and patient was important for me. Also I explained my staff about this error and the reason of changing it and difference between Long acting or Modified released and normal tablets or capsules. That was good information and thing of learning for them.

| **RPS Foundation Framework** | | | |
| --- | --- | --- | --- |
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**EXAMPLE 3**

This scored 13/15.

Master JG, a 3 week old neonate, born at 33 weeks gestation. He had been on the neonatal ward since birth due to prematurity and I was the neonatal pharmacist.

Weight: 1.5kg

Presenting complaint: (high CRP), low blood sugar.

Past medical history: neonatal sepsis, prematurity

Social History: He will be discharged home to live with parents and siblings.

Medication: Abidec 0.6ml od, folic acid 0.2ml od.

Diagnosis: neonatal hypoglycaemia.

I arrived on the ward as the ward pharmacist, after the weekend, and Master JG had been prescribed Diazoxide 2.25 mg tds (1.5mg/kg tds) and Chlorothiazide 15mg bd (10mg/kg bd).

After confirming that we were treating Master JG for hypoglycaemia I discussed with the doctors where they got the dose for the chlorothiazide from. I was aware that the dose for hypoglycaemia is 3-5 mg/kg bd, meaning that the dose prescribed (10mg/kg bd - the dose used in hypertension) for this indication was an overdose. The consultant told me that she had used both our local neonatal formulary and the BNFC to find out the dose. When I investigated I found out that the formulary does not specify that the 10mg/kg bd is for hypertension and there was no information regarding using this medicine in hypoglycaemia. In addition the BNFC had a small paragraph about its use in hypoglycaemia and the doctor had missed this and followed the guidance for hypertension (4, 5).

I confirmed my suspicions with the medicines information pharmacist (as well as using the Guys and St Thomas’s Neonatal formulary. (6)) and explained this to the consultant. I also ensured that this was updated in our neonatal formulary.

The patient had received 6 doses of the medication over the weekend and subsequently his sodium had decreased to 131mmol/l (133–146 mmol/L), his potassium and blood pressure remained in range.

The BMS were also in range (approximately 3.5mmol/l) and so it was decided that we would reduce the dose to 7.5mg bd (5mg/kg bd) and monitor the blood sugar closely.

I filled out an incident report as per trust policy and a multidisciplinary meeting was held to discuss and learn from the error. In addition the parents were informed and the ward sister asked me to explain the error to the parents. If I had not spotted this error, the patient could have had worsening of the side effects such as hypotension, electrolyte disturbance and dangerous hypoglycaemia. This could have caused the patient to be in intensive care for longer and delayed his discharge. The Patient improved rapidly after the dose change as well as 3 days of sodium chloride 0.75 mmol qds. The cultures came back negative and he was discharged on abidec 0.6ml od, folic acid 0.2ml od, chlorothiazide 6.5mg bd and diazoxide 3mg tds.

Reflection: This incident emphasized the importance of keeping guidelines updated as well as clear for each indication. In addition it made me aware of the use of the BNFC as it is constantly updated and by using more than one source of information can reduce error. I felt that my intervention reduced patient harm.

It seems that although errors may occur frequently on a neonatal unit due to the fragile nature of the patients, Medication errors were the most common error type submitted to the Vermont Oxford Network’s reporting system (7).  Neonates, especially very low birthweight babies, are particularly vulnerable to adverse effects of medications (8).

Since this incident, the formulary is constantly being updated, and whenever I see there is a discrepancy between the BNFC and our formulary that would have a clinical impact, I make sure that the consultant involved is aware of this. This should ensure that an incident like this does not occur again in the future.

| **RPS Foundation Framework** | | | |
| --- | --- | --- | --- |
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### Portfolio Item 6: Adverse Drug Reaction

**EXAMPLE 1**

This scored 15/15.

Patient B.F. attended a pharmacy seeking to have a confidential consultation, I was the acting RP and therefore engaged with the patient in the consultation room.

**Age:** 69

**Gender:** Male

**Weight:** 11stone

**Height:** 5feet and 8inches

**BMI:** 24

**Past Medical History:** Hypertension, Diabetes Type 2.

**Surgery History:** N/A

**Social history:** Married, living with wife, no children, goes walking on most days for half an hour, shopping, occasional drinking on the weekends, ex-smoker, retired.

**Medication list:** Aspirin 75mg tablets, Ramipril 10mg capsules, Simvastatin 40mg tablets, Metformin 500mg tablets and Dapagliflozin 10mg tablets.

I applied a mixture of questions from both the Anthropological model and Pendleton’s Framework13 in order to establish a patient-centred communication process which clearly expressed the reason for the patient seeking a confidential consultation.

Patient B.F. complained that recently he was feeling lightheaded/dizzy. These symptoms only occurred in the mornings for 10-15minutes. After a thorough investigation involving a medication history and adopting skills such as active listening, being supportive and using open/closed questioning strategies, I determined the possible cause of the symptoms as an ADR to his new medication, Dapagliflozin. To confirm this as the potential causative drug, I managed to obtain a fax of patients B.F. medication notes at his last hospital visit from his GP. This supported the commencement of Dapagliflozin. Dapagliflozin is indicated for type 2 diabetes which links with the patients history. More importantly, the onset of symptoms coincides with when the patient started taking Dapagliflozin thus providing an essential cue to the reason of the symptoms.

The BNF68 confirms Dapagliflozin as a medicine under additional monitoring as identified by (▼) 14.This was of sufficient magnitude to warrant a completion of a ‘Yellow Card,’ (I completed this online).

I explained to the patient that the symptoms he was experiencing were an ADR from his Dapagliflozin and that after, basic observation and confirmation with his GP, he should continue to take the Dapagliflozin but with food early in the morning and if the symptoms occur, to sit up/stand slowly or lie down.

I contacted the patient after a few days and the patient expressed the same ADR concerns. Consequently, I referred the patient to his GP and contacted his diabetic nurse explaining the problem.

**Reflection:**

Initially, it was my own clinical knowledge on Dapagliflozin that provided a solid foundation on determining the ADR. The Anthropological model, Pendleton’s Framework and Basic Observations taught from the Clinical Pharmacy Skills went well in improving patient outcome and medicines optimisation to his disease state.

I am very happy with my performance as I was able to identify an ADR, recommend subsequent management and communicate effectively with the GP, Diabetic Nurse, Receptionist and patient to make a shared-decision which did not compromise his disease management. Evidently, patient has now achieved glycaemic control for his Type 2 Diabetes by starting on Insulin and is experiencing no ADR on omission of Dapagliflozin. In this particular context the ADR could not be prevented as the patient just could not tolerate the medication.

The one important part I learnt about myself is that I need to play a more active role in the ‘Yellow Card Scheme.’ Generally, I complete the ‘Yellow Card’ for all medicines marked with (▼), but I also need to complete the ‘Yellow Card’ for established medicines causing serious ADR, even if it is a suspicion14.

| **RPS Foundation Framework** | | | |
| --- | --- | --- | --- |
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**EXAMPLE 2**

This scored 14/15.

Context

Mrs JP, 82 years old, was admitted to hospital following a GP referral due to a haemoglobin (Hb) level of 66g/L. Mrs JP lives with her daughter who assists with her care. She is independently mobile, and reports alcohol use only on ‘special occasions’. She had also noticed fresh blood following opening her bowels, both on the tissue and in the toilet, prior to admission. She has a history of haemorrhoids, which have been unsuccessfully banded, atrial fibrillation with mild left ventricular systolic dysfunction, iron deficiency anaemia, and a hiatus hernia. She has no known allergies or intolerances. Her medication on admission is summarised in table 5. I was the ward pharmacist responsible for reviewing Mrs JP’s medication.

Table 2: Medication on admission for Mrs JP

| **Medication** | **Dose** | **Indication** |
| --- | --- | --- |
| Apixaban | 5mg BD | Anticoagulation due to atrial fibrillation (AF) |
| Bisoprolol | 1.25mg OD | AF |
| Bumetanide | 0.5mg OM | Heart failure |
| Co-codamol | 8/500mg 2 tablets QDS PRN | Analgesia |
| Ferrous fumarate | 210mg TDS | Iron deficiency anaemia |
| Movicol | 1-2 sachets up to BD PRN | Constipation associated with codeine and oral iron |
| Lansoprazole | 15mg OD | Dyspepsia associated with hiatus hernia |
| Ramipril | 1.25mg OD | Heart failure |

Clinical Skill

Mrs JP was found to have bleeding haemorrhoids, and was admitted for further investigations to exclude lower gastro-intestinal (GI) bleed and review of the management plan for her haemorrhoids.

It was decided that being anticoagulated, with apixaban, had contributed to the bleed. If the patient had not been anticoagulated then the extent of the bleeding may not have been significant enough to require hospital admission. I completed a ‘yellow card’ as apixaban is a ‘black triangle’ medication, subject to additional post-marketing surveillance, and it was suspected to have contributed to the hospital admission. Following admission apixaban was withheld and the patient received 2 units of blood. There were no further episodes of PR bleeding, and the patient’s Hb was stable above 100g/L. Following surgical review, it was decided to withhold apixaban for 1 week, and then restart pending further intervention for haemorrhoids. This decision was taken as initially the risk of further bleeding was greater than the risk risk of a clot from AF. Once bleeding resolved this risk/benefit was reversed.

Reflection

The patient remained stable throughout admission, lower GI bleed was excluded, and no evidence of ongoing PR bleed was found on examination. Whilst the patient’s Hb continued to be low, this was usual for the patient due to iron deficiency anaemia. The patient’s ferrous fumarate was also withheld prior to colonoscopy, as per policy. Ferrous fumarate was restarted following the completion of investigations, and the GP was asked to perform a full blood count after admission and review oral iron.

If the patient had not been anticoagulated this admission may have been avoided, whilst it was likely that they may have experienced a small amount of PR bleeding from the haemorrhoids it may not have been extensive enough to have resulted in hospital admission. However, due to the patient’s co-morbidities anticoagulation was indicated. Their HASBLED score was calculated prior to restarting apixaban and was found to be 2, due to age and previous bleed. Therefore it was reasonable to continue with anticoagulation if the risk of clotting was considered significant.

When I reviewed this patient the apixaban was already withheld. I ensured that the HASBLED score was calculated and considered by the doctors when deciding the plan. I completed the yellow card in a timely manner, and ensured the patient was aware that I was doing so for informal consent purposes. Given the black triangle status of apixaban, and the severity of the bleed (requiring hospital admission), I would yellow card this scenario again if it occurred

| **RPS Foundation Framework** | | | |
| --- | --- | --- | --- |
| Cluster 1 Patient and Pharmaceutical Care | Cluster 2 Professional Practice | Cluster 3 Personal Practice | Cluster 4 Management and Organisation |
| Patient Consultation  Need for Medicine  Provision of Medicine  Selection of Medicine  Medicine Specific Issues  Medicines Information and Patient Education  Monitoring Medicine Therapy  Evaluation of Outcomes  Transfer of Care | Professionalism  Organisation  Effective Communication Skills  Team Work  Education and Training | Gathering Information  Knowledge  Analysing Information  Providing Information  Follow Up  Research and Evaluation | Clinical Governance  Service Provision  Organisations  Budget and Reimbursement  Procurement  Staff Management |

**EXAMPLE 3**

This scored 10/15.

Patient admitted after a road traffica accident causing spine injury on 1 November 2015. Patient spiked temperature after being hospitalised for about a month, started on Tazocin 4.5g Q6H as empiric antibiotic cover.

**Patient age:** 29 year old

**Patient gender:** Male

**Past medical history:** N/A

**Social history:** N/A

**Medication List:**

|  |  |
| --- | --- |
| **Medication** | **Indication** |
| Enoxaparin 40mg OM | DVT prophylaxis (started on 4 Nov) |
| Paracetamol 1g QDS PRN | Analgesia (started on 1 Nov) |
| Codeine 30mg TDS PRN | Analgesia (started on 1 Nov) |
| Lactulose 15mL TDS PRN | Constipation (started on 1 Nov) |
| Dimeticone cream TDS | Prevent bed sore (started on 1 Nov) |
| Tazocin 4.5g Q6H | Started on 30 November 2015 as empirical therapy |

I have seen the patient on 25 November 2015 and since patient has been hospitalised for a month, he is at high risk of developing nosocomial infection, therefore Tazocin [Tazobactam and Piperacillin] was started as empirical antibiotic treatment to cover common nosocomical pathogens such as pseudomonas aeruginosa. After one day of Tazocin, noticed mild spots of redness start to develop on the inner thighs associated with pruritus. Patient claimed he has not tried any antibiotics before, also no known drug allergy was documented. The redness was treated with hydroxyzine to control itchiness for a day. However, these red spots expanded to the whole leg the next day and this was thought to be an allergic reaction to Tazocin as it was the only new medication started recently. Serious skin reactions such as Steven-Johnsons Syndrome have been reported with use of Tazocin and should the rash progresses, Tazocin should be stopped immediately.6 Tazocin was stopped immediately while pending blood culture results. No antibiotic coverage was given as patient was afebrile.

Patient was given IV Hydrocortisone 100mg Q6H and patient responded well to steroid treatment as the rashes diminishes after two days. Blood cultures reported growth of *proteus mirabilis* in blood and Ciprofloxacin was used with sensitivity reported. Ciprofloxacin has no cross-sensitivity with penicillin group and therefore is a safe choice.

The adverse reaction was documented in the Critical Medical Information Store (CMIS) system which can be assessed nationwide in Singapore by any doctors to alert them prior to prescribing drugs of similar class.

**Reflection:** I felt that I have approached this matter appropriately as a pharmacist, any known drug allergy should be clearly documented to prevent any such adverse reaction from happening again and this will trigger prescribers to consider the risks of cross-sensitivity when using other classes of antibiotics.

| **RPS Foundation Framework** | | | |
| --- | --- | --- | --- |
| Cluster 1 Patient and Pharmaceutical Care | Cluster 2 Professional Practice | Cluster 3 Personal Practice | Cluster 4 Management and Organisation |
| * 1. Patient Consultation   2. Need for Medicine   3. Provision of Medicine   4. Selection of Medicine   5. Medicine Specific Issues   6. Medicines Information and Patient Education   7. Monitoring Medicine Therapy   8. Evaluation of Outcomes   9. Transfer of Care | * 1. Professionalism   2. Organisation   3. Effective Communication Skills   4. Team Work   5. Education and Training | * 1. Gathering Information   2. Knowledge   3. Analysing Information   4. Providing Information   5. Follow Up   6. Research and Evaluation | * 1. Clinical Governance   2. Service Provision   3. Organisations   4. Budget and Reimbursement   5. Procurement   6. Staff Management |

### Portfolio Item 7: Medication related inquiry from a healthcare professional

**EXAMPLE 1**

This scored 15/15.

1. Context

Whilst working in Women’s health, the Breast FY1 doctor approached me regarding the following patient in *Table 4*:

|  |  |
| --- | --- |
| Background Info | |
| Patient details: | Mrs JD, 70yrs, female |
| PC: | Dizzy, high temp. ?Infection of breast, post-surgery |
| PMH: | AF, HF, Asthma, HTN, Gout |
| Diagnosis: | Severe MRSA infection confirmed in wound |
| Tx of choice: | Vancomycin 750mg BD (IV) |
| CrCl: | 74ml/min |

The doctors query was the following, “Mrs. JD has just had a Vancomycin level return as 7mg/L post 3 doses, significantly lower than expected levels, what should we do?”

Before answering the question there were a few things I needed clarification on:

Am I right in thinking you want to know if increasing the dose is appropriate to achieve the target level? – ask doctor

What target level were you hoping to aim for? – ask doctor.

Is the calculated dose correct? – self-check

Was the loading dose given? – check kardex

Has the level been taken at the appropriate time of day? (Less important given it’s a trough level) – ask nurse

Have any doses been missed? – check kardex

What other medicines is JD taking? – check kardex for interactions between medicines.

As per the pharmacy standards for consultation skills, we negotiated a shared understanding of the answer she expected me to provide (2) by confirming she was expecting a level of at least 10mg/L and wanted to know if the dose could be increased or if we needed to switch to an alternative agent. I had clinically checked the Vancomycin a couple of days previously but I decided to double-check the dose to ensure it was correct. Using her ideal body weight to calculate creatinine clearance and her actual body weight to calculate the loading dose, I confirmed the correct doses had been prescribed. I also checked the kardex to ensure a loading dose had been administered, which it was, and confirmed with the nurse that the level had been taken at the correct time and no doses had been missed.

2. The Communication Skill

Upon clarifying the above, I had sufficient background information to research my answer. Firstly, I referred to the trust antimicrobial guidelines as these provide direction on up-to-date and cost-effective antibiotics based on current evidence and national guidance. (5) Secondly I used the British National Formulary to check side effects and toxicity that we should be aware of when increasing the dose. (6) I used my own intuition and gut feeling to provide my treatment recommendations, but supported this with evidence based-medicine. (2)

I approached the doctor in the doctor’s office and verbally communicated the answer to her question:

*“Despite the manufacturer issuing a much more cautious, lower target level for Vancomycin (7) both the trust formulary and the BNF state that target pre-dose level is 10-15mg/L however in severe infections (including MRSA) microbiology advise to aim for higher pre-dose levels (e.g. 15-20mg/L). (5)(6) The trust antimicrobial formulary suggests that if the level is reported as lower than the desired therapeutic range, and taken at the correct time, consider increasing the dose by 500mg daily (i.e. an extra 250mg every 12 hours), and recheck the levels before the 4th dose. (5)*

*I would recommend that you contact microbiology to ensure the higher target range is advisable. However, given that Mrs. JD’s level is considerably lower than expected, and she is being treated for severe MRSA infection, I would advise that the appropriate decision to make would be to increase the dose of Vancomycin to 1g BD to try hit the higher target level of 15-20mg/L as the highest priority in this patient’s care is treating the infection.*

*Mrs. JD’s creatinine clearance is at a good level and therefore permits us to increase the dose. Vancomycin is not specifically renal toxic, but if Circle drops and the drug starts accumulating, we should observe for toxicity by monitoring FBC for blood disorders such as neutropenia and also monitor for signs of nephrotoxicity and ototoxicity.*

*As it is currently time for the 4th dose, I would suggest giving the higher dose now and repeating a level prior to the 5th dose as the levels are currently too low to effectively treat the infection and so benefit outweighs the risk.”*

Throughout the consultation, I checked the doctor’s understanding, while allowing time and space to reflect and understand my verbal reasoning. (2)

As per the practice standards in *Consultation skills for Pharmacy Practice*, I documented an accurate and legible account of our consultation in the patient’s notes, stating the facts I provided at the request of the practitioner.(2) Within 24 hours later, we saw improvement in the patient’s signs and symptoms, and the level came back as 12mg/L after the 4th dose and continued to rise to target range of 15-10mg/L, which microbiology confirmed was an advisable target given the severity of the infection.

I asked the doctor how I performed in providing the information she needed and she responded with *“You were very knowledgeable, accurate and thorough. I understood exactly what advice you were providing and I was able to take action in a timely manner as you responded quickly to my question. The only point I think I would make about improving your practice is possibly reducing the volume of information you are giving me, to make it easier in highlighting the actins I need to take.*

3. Reflection

Overall, I was very content with my consultation with a fellow healthcare professional. I felt I excelled in my level of professionalism, recognising my clinical responsibility and my limitations, but simultaneously behaving in a trustworthy manner that inspires confidence in my fellow colleague, (1) and I feel we had an outcome in which both the junior doctor, and myself achieved our aims satisfactorily. I used the consultation to further educate the doctor on therapeutic drug monitoring and how to use the Antimicrobial guide. (5) I shared the information I knew and had gathered to allow the doctor to make an informed choice and discuss the options with myself or another doctor. Another essential feature from the *CSfPP* that I recognised in my practice was my demonstration of sufficient, up-to-date pharmaceutical knowledge, and my understanding of the potential for adverse effects and how to recognise them.

As discussed previously when reviewing the *RPS Foundation Pharmacy Framework*, (1) an area that I feel I am lacking is my communication skills with doctors, particularly approaching them with suggestions about changes to treatment they have prescribed. I felt that when I verbally communicated my advice to the breast FY1, I did not deliver it in the most concise manner, as agreed by the doctor in her feedback. However, I feel I have greatly improved since commencing this current rotation, as more interaction with the medical team has arisen, and I shall continue to do so with further consultations.

I feel the best way I can enhance my communication with the medical team for future consultations is building up a rapport with the individual doctors and respecting their role as part of the healthcare team to establish an open and honest relationship that encourages sharing of evidence-based knowledge and new ideas to see the best possible outcome for the patient.

Through this scenario, I have learnt that I am good at using resources effectively in my practice and sharing the information I have gathered to allow clinical decisions to be made. I also succeed at understanding the other party’s agenda and expectations in consultations and following this through to meet their aims, the foundation of a good consultation and an opportunity to build on my communication skills with doctors for the future.

|  |  |  |  |
| --- | --- | --- | --- |
| CLUSTER 1: PATIENT AND PHARMACEUTICAL CARE | CLUSTER 2: PROFESSIONAL PRACTICE | CLUSTER 3: PERSONAL PRACTICE | CLUSTER 4: MANAGEMENT AND ORGANISATION |
| Standards met: | **Standards met:** | **Standards met:** | **Standards met:** |
| Patient Consultation  Need for the medicines  Provision of medicines  Selection for the medicine  Medicines specific issues  Medicines Information and Patient Education  Monitoring Medicine therapy  Evaluation of Outcomes  Transfer of Care | 2.1 Professionalism  2.2 Organisation  2.3 Effective Communication skills  2.4 Teamwork  2.5 Education and Training | 3.1Gathering information  3.2 Knowledge  3.3 Analysing Information  3.4 Providing Information  3.5 Follow up | 4.2Service Provision  4.5 Procurement |

**EXAMPLE 2**

This scored 9/15.

**Patient:** M.B.

**Age:** 49

**Gender:** Female

**Weight**: 9stone

**Height:** 5foot and 5inches

**Past Medical History:** Mania, Depressive illness.

**Surgery History:** N/A

**Social history:** Divorced, living with her one child, ex-smoker, office worker

**Medication list:** Zopiclone 7.5mg tablets, Mirtazapine 30mg tablets, Olanzapine 2.5mg tablets, Lactulose Oral Solution.

Patient M.B. had been taking Olanzapine 10mg tablets once daily for five days instead of Olanzapine 2.5mg tablets. This was a result of a medication error which was not identified at the pharmacy attended most recently by the patient. The error was established by her GP from an appointment she booked as she felt unwell.

I was assuming my duties as a community RP, when I took a telephone call from a GP at our local surgery in relation to the patient, M.B.

The GP queried, “When should I re-introduce the Olanzapine?” I explained to the GP there were many factors affecting this decision and that I had to sought further clarification before I provided a clinically safe answer.

I referred to the BNF68 so I could analyse the possible levels of monitoring requirements to be conducted. I exploited the Martindale as this is the complete drug reference guide and it provided vital information on the Pharmacokinetics of Olanzapine.

I called the G.P. at a time arranged by the practice manager so the information I provided was clear with no interruptions. I explained to the GP the following:

* Full blood counts, urea and electrolytes, and liver function test monitoring were required15.
* Blood Lipids and fasting blood glucose were to be measured.
* A physical examination was to be conducted to identify cardiovascular risk factors15.
* To monitor Blood Pressure.
* If all the above parameters come back clear, we can then consider the half-life. The mean plasma elimination half-life of Olanzapine has been variously reported to be about 30 to 38hours16 so therefore we can withhold Olanzapine for the patient approximately 72hours (3days) allowing the Olanzapine-plasma concentration to fall from 10mg back to the original 2.5mg. After 3 days we then can consider re-introducing Olanzapine 2.5mg once daily.

**Reflection:**

Reflecting on my own practice I think I referred to the correct sources of information. This can be justified as two weeks after my clinical answer to the query, the GP called back explaining, the patient had all the relevant blood tests and parameters conducted and that she has now started her medication again.

I think what went well was how I was confident in my clinical knowledge and understanding and after consulting product literature I was able to provide an answer that ensured patient safety.

I think what did not go so well was my use of the Martindale. As I have not used this source of information I was not familiar with the layout or content and this delayed the time in which I extracted the information I needed.

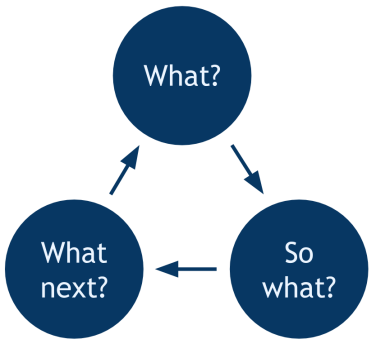
I have learnt that I do not use other sources of information to deal with medicine-related queries well enough. During conducting this skill, I came across a wide range of sources of information that I can now utilise when I approach this skill in the future.

| **RPS Foundation Framework** | | | |
| --- | --- | --- | --- |
| Cluster 1 Patient and Pharmaceutical Care | Cluster 2 Professional Practice | Cluster 3 Personal Practice | Cluster 4 Management and Organisation |
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**EXAMPLE 3**

This scored 14/15.

For my reflection I am going to use the Driscoll model of reflection as it provides a structured framework for me to explicitly focus on a single event.



**Figure 1. Driscoll Model of Reflection (1)**

**What?**

Whilst working out of hours I received a bleep from the paediatric haematology registrar regarding sub-therapeutic vancomycin levels of 5.5mg/L (10-15mg/L) and they wanted advice on how to proceed. Patient was a palliative but still for escalation of treatment for infection. They were receiving intrathecal vancomycin 5mg OD and intravenous vancomycin 175mg 6 hourly. In order to answer the question fully I needed details on the following:

* **Summary of patient history**
* **The patient’s renal function –** stable, no change from baseline.
* **Why were they receiving it 6 hourly as normal dosing starts at 8 hourly –** reviewed by PICU pharmacist who had recommended increase to 6 hourly from 8 hourly as already had a low level. Recheck levels again after 5 doses. Level is back now after that 5th dose and is still low.
* **Have the levels been taken at the correct time -** Yes. Check by the registrar an myself on blood reporting system.
* **Was a plan documented in the notes –** no plan documented for if the level after dosing interval decrease to 6 hourlies was low.

There was no information in the BNFc, SPC, local trust policy, MI databank. The registrar had never come across this situation before nor had their supervising consultant.

Next I consulted the Guy’s and St Thomas’ Paediatric formulary as they are a tertiary centre for paediatrics. This contained advice to increase total daily dose by 10-20% but was in relation to continuous infusions. (appendix 1) Following this I conducted a search online and located a hospital policy from the Nottingham’s children hospital which again recommended dose increases of 10-20% but for continuous and intermittent infusions. (appendix 2)

I printed off both resources and met the registrar on the ward to discuss and negotiate a plan face to face opposed to via the telephone. I recommended an increase of 20% as the level had been recurrently low and was concerned that patient had persistently low levels and therefore it wouldn’t be having its desired antibacterial effect. The registrar only agreed for a 10% increase as he had never dealt with this situation before and wanted to act cautiously.

**So what?**

I feel I answered the query to the best of my capability and in a timely fashion. I felt slightly nervous dealing with the enquiry as I had no prior paediatric experience even though I had resources to support my advice. I think my decision to go to the ward and discuss face to face with the doctor aided our ability to agree a plan however I should have negotiated more forcefully with the registrar when deciding on how to increase the dose. At the time I was fairly newly qualified and I felt that as they had more clinical experience then they were more qualified to make this decision. On reflection I wish I explained my rationale in more detail as a 20% increase would of equally as appropriate. I documented the query on the departmental software and handed over directly to the pharmacist covering the ward that day. To ensure faultless transfer of care across the multitude of teams caring for this child, it would have been more appropriate to also document this decision in the medical notes.

**What next?**

On reflection I regret not documenting the outcome of this discussion in the medical notes as it is important that all staff members are aware of the plan. I feel I was reluctant to do this as I had not gained much experience at making clinical entries. This is something I strive to practice when the opportunity arises now in my day to day practice. I feel I need to develop more confidence in my clinical capability and recognise that as a pharmacist I possess the appropriate skills to analyse information and make recommendations where they may be a lack of experience or an absence of evidence.

|  |  |  |  |
| --- | --- | --- | --- |
| **1. Patient and Pharmaceutical Care** | **2. Professional Practice** | **3. Personal Practice** | **4. Management and Organisation** |
| **1.5** Medicine specific issues  **1.6** Medicines information  **1.7** Monitoring medicine therapy  **1.9** Transfer of care | **2.3** Effective communication  **2.4** Team work  **2.5** Education and training | **3.1** gathering information  **3.3** Analysinginformation  **3.4** Providing information |  |

Table 3. RPS framework standards met for item 5

**References**

1. Driscoll J., Reflective practice for practise. *Senior Nurse* 1994; Vol 13 Jan/Feb: 47-50