** TECHNICAL REPORT**

**ON**

**STUDENTS INDUSTRIAL** **WORK**

**EXPERIENCE SCHEME**

**(SIWES 1)**

**UNDERTAKEN AT**

**PRIME MEDICAL CONSULTANT PORTHARCOURT**

**DURATION: 3MONTHS**

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**BY**

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**A STUDENT INDUSTRIAL WORK EXPERIENCE SCHEME REPORT SUBMITTED TO**

**DEPARTMENT OF PHARMACOLOGY,**

**FACULTY OF BASIC MEDICAL SCIENCE**

**COLLEGE OF MEDICINE AND HEALTH SCIENCES**

**AFE BABALOLA UNIVERSITY, ADO EKITI**

**EKITI STATE, NIGERIA**

**IN PARTIAL FULFILLMENT OF THE REQIUREMENT FOR THE AWARD OF THE DEGREE IN**

**BACHELOR OF SCIENCE (B.Sc.) IN PHARMACOLOGY**

**CERTIFICATION**

This is to certify that this report is a detailed account of the Student Industrial Work Experience Scheme (SIWES) undertaken by **OKOSUN MAUREEN. O** at **PRIME MEDICAL CONSULTANT, PORT HARCOURT** for a period of 3month and has been prepared in accordance to regulation guiding the proportion of reports in the department of Pharmacology, AFE BABALOLA UNIVERSITY.

**STUDENT’S NAME AND SIGNATURE** **DATE**

**SIWES SUPER****VISOR NAME AND SIGNATURE** **DATE**

**SIWES SUPERVISOR**

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**(Department of pharmacology, ABUAD)**

**HEAD OF DEPARTMENT**

**MR. ADEOLUWA OLUSEGUN**

**(Department of pharmacology, ABUAD)**

**DEDICATION**

I dedicate this report to the Almighty God for making it possible for me to start and finish my industrial training and also for keeping me safe throughout the entire program. I also dedicate this to my parents who encouraged, supported and adviced me on the working class world. To my lovely siblings and my aunt who were always there to dry my tears and to listen to my complains. To my wonderful friends Faith, Mercy and Beatrice who supported me. You all rock.

**ACKNOWLEDGEMENT**

I would like to acknowledge and show my Profound Gratitude to my industrial based supervisor, Mrs. Anuli – Frank Nwankwo for making sure I got the most out of my SIWES training and to all those who contributed in small and great ways to the overall success of my SIWES program in prime medical consultant pharmacy department, especially in the aspect of Work ethics, behavioral attitude to work and discipline. I will not forget my Gained experiences and how you Impacted me intellectually, academically and mentally in a short period of time.

**INDUSTRY BASED SUPERVISOR**

 **(PRIME MEDICAL CONSULTANT)**

**PHARM. MRS. ANULIKA - FRANK NWANKWO.**

**INSTITUTION SUPERVISOR**

**PROF. MRS. OLAYINKA**

**(DEPARTMENT OF PHARMACOLOGY, ABUAD)**

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5. **INTRODUCTION**
	1. **PURPOSE OF TRAINING**

The Student Industrial Work Experience Scheme (SIWES) was initiated in 1973 by the Industrial Training Fund (ITF). This was to update practical knowledge of students in the Universities, Polytechnics and Colleges of Technology.

It was aimed at bridging the gap between the theoretical knowledge acquired in classes and technical knowledge in the industry by providing students with the opportunities to apply their educational knowledge in real work situations. Over the years, SIWES has contributed immensely to building the common pool of technical and allied skills available in the Nigeria economy which are needed for the nation’s industrial development.

Furthermore, the place and relevance of SIWES is underscored by the fact that the scheme contributes to improving the quality of technical skills generally available in the pool from which employer’s source technical manpower Its gives student the opportunity to blend the theoretical knowledge acquired in the classroom and with practical hands-on application of knowledge required to perform work in the industry. Also, it prepares students for employment and makes the transition from school to the world of work easier after graduation.

 I undertook my SIWES at Prime Medical Consultant (Pharmacy Department) which is located at Avenue Eliada Estate 4, Prime Close, Off Chief Nyenwenwo Avenue, Port Harcourt, Nigeria from May to August 2019.

* 1. **BRIEF OVERVIEW OF PRIME MEDICAL CONSULTANT**

 It is located at #4 PRIME CLOSE, off Chief Nyenwenwo Avenue, Off Okporo Rd, Rumuogba, Obio/Akpor Local Government of Rivers State, Nigeria.

INFRASTRUCTURE: Located on a one and a half acre of land, the clinic has a beautiful Lawn with flowers and a large parking space with the capacity to take 50 cars. The hospital is a four-floor building with 60 beds for admission of patients.

There are four adult and two pediatric consulting rooms, one lobby, 2 waiting rooms and a Pediatric waiting room that is beautifully decorated with cartoon characters. Also located on the ground floor are the laboratory, the pharmacy, the X-ray department, the kitchen and the laundry departments.

For admission of patients, they have executive suites, private rooms, semiprivate rooms and general wards. All the rooms are furnished with a satellite cable television, a refrigerator, a fan and air conditioners.

* 1. **ABOUT THE HOSPITAL**

PRIME MEDICAL CONSULTANTS is a private hospital with unique health establishment with modern and sophisticated facilities aimed at providing comprehensive specialist health care package for individuals, families and corporate bodies at an affordable cost

It is a private hospital that provides quality services in medical areas such as Ante-natal, Gynecology, Accident and Emergency, Diabetes Support center, Medical Laboratory, Dental, General Out-patient treatment, Medical and Surgical, Obstetrics and Gynecology, Ophthalmology, Pediatrics and Child Health, physiotherapy and Radiological services. They are equipped to meet acceptable global standards in manpower and machines. It has continuously rendered qualitative services to millions of patients, irrespective of race, creed, color, social status, religion etc.

Prime Medical Consultant is set to sustain its multi-specialist services orientation to the practice as well as our humanitarian services as a way of giving back to society. With two branches running and more in view, it is their goal to apply itself to our vision of global presence without relenting, knowing that it is always possible. It prides itself in quality, best practice and efficiency.

**PMC VISION:**

* It is our vision to be the leading healthcare provider that is comparable with international standards

**PMC MISSION:**

* Our mission is to provide affordable, compassionate and quality patient centered care in a responsive healing environment.
1. **TRAINING OF PROGRAMME**
	1. **MY COURSE OF STUDY**

Pharmacology is the branch of pharmaceutical sciences which is concerned with the study of drug or medication action, where a drug can be broadly defined as any man-made, natural, or endogenous (from within the body) molecule which exerts a biochemical or physiological effect on the cell, tissue, organ, or organism.

* 1. **THE PHARMACY DEPARTMENT**

The hospitals pharmacy department is divided into four units

1. The General out – patient pharmacy.
2. The In – patient pharmacy.
3. The Active stores.
4. The Bulk stores.

I was rotated through this units for the period of three months. This units are all headed by the head of the department who was assisted by pharmacy employees.

The GOPD provides services to all patients which is divided into two, the private patients and the NHIS patients as well as the accident and emergency unit with the exception of patients who are on admission.

The Active store provides immediate services to all departments without the need of using bulk store. All the pharmacy assistant including interns have access to this store.

The Inpatient pharmacy provides services to all patients on admission as well as patients who are enrolled under NHIS.

The Bulk store contains all the drugs needed in the pharmacy. It is under the strict supervision of the head of the department. It provides services to all the department in the pharmacy.

* 1. **TRAINING EXPERIENCE**

During my SIWES training at Prime Medical Consultant pharmacy, I carried out my training program in three pharmacy departments. i.e. GOPD (General Out Patients Department), In – Patients pharmacy and Drugs Stores.

* **OUT PATIENTS PHARMACY**

I resumed work at the Out Patient Pharmacy Department on the 20th May, 2019. On the first day, I was introduced to the operations and activities in the unit. Before the end of the day, I got familiarized with the unit and drugs present in the Pharmacy. The Outpatient Unit deals with discharged patients, and sometimes In-patients. The hospital uses an Electronic Medical Record (EMR) on a software called Medic plus. Every department in the hospital is connected to a sever and they all use this feature. The patient’s profile is easily accessible. The vital signs, age, weight, medical history and medication history are all included. So, prescriptions are sent by the doctors/consultants through the EMR and there the pharmacist can have access to it. The prescriptions are first screened to ensure they are correct, they are then costed and the patient pays. The prescription is then filled in the active store and taken to any one of the cubicles which are available for the pharmacists to do a final screening especially on expiry date. The pharmacist also counsels the patients regarding drug compliance, drug interaction, side effects etc.

I learnt about the proper routine of attending to prescriptions (Interpretation, Assessment and Dispensing and Counseling), I went through most of the prescriptions to check for its completeness and accuracy. I learnt extensively on the component of a prescription, why drug dosage would affect a person’s age, weight or past drug history, different medical terms and different abbreviations for the times drugs should be taken such as BDS (two times daily), QDS (four times daily), when drugs should be taken (before or after food), on a daily basis while carrying out desk work activities in the unit. I was allowed to Assess, Dispense and counsel some patients, all under strict supervision of the pharmacist-in-charge.

On the first day of the Month, the unit goes through all the drugs left in the pharmacy from the previous month, taking record of the drugs that are going to expire that month and the month to come, the unit also takes inventory of drugs dispensed to out-patients the previous month checking if all were delivered to the recipients, which is first day of the month routine. If drugs are newly purchased, the pharmacist in charge takes stock count of newly stocked drugs. At the End of the month, the Pharmacists takes Stock count of all the drugs in the unit which is an end-of-the-month routine in the pharmacy. During the first five weeks of my training, I participated in all the inventory, drug stock drug count and I was lectured on why these monthly routines where been done.

Out-patient Pharmacy deals with General Out-Patients under the:

**NHIS (National Health Insurance Scheme)** I.e. Government and Non-Government Workers, Prime Medical Consultant workers who are under this scheme can access good and effective Health care services at an affordable cost through various prepayment systems. Those under this scheme contribute monthly or annually to the pool in which the collective money is been used to subsidize health cost for all beneficiaries. Some of the available Drugs are NHIS fully covered or partially covered while some are not covered at all. NHIS Beneficiaries would have to pay 10% of their total drug cost while the remaining 90% would have been covered by the Health Insurance Scheme.

**Fee Paying Patients (Private)** I.e. Those that aren’t under the NHIS. Here, Patients would have to pay in full for their drugs.

* **DRUG STORAGE UNIT**

After five weeks training at OPD, I was transferred to the Drug storage unit to continue my training experience. I was orientated on the operations and activities been carried out in the unit.

* **THEBULKSTORE**

 The bulk store is the key facility in supply chain and distribution for pharmaceutical, medical and surgical inventories. It functions as a distribution warehouse for all inventories required for patient care services.

The bulk store is headed by the head pharmacist who also supervises other pharmacist in the bulk store. Also, in this bulk store, the psychotropic substances/Dangerous Drugs are kept under lock and key and controlled in accordance with the Dangerous Drug Act 1952 and Poison Act 1952.

Adequate space is made available so that First-Expire-First-Out (FEFO) can be implemented efficiently with much ease. Requisitions are sent by a senior pharmacist to the Bulk store only from Active store.

* **THEACTIVESTORE**

In the active store, requisitions are sent to the bulk store, and also requisitions are received from the In-patient department only. The active store supply drugs to call on a daily basis.

 Under the supervision of the pharmacist, I was able to issue drugs to the In-patient department, and Ante-natal care units. I was also able to partake in stock taking at the end of every month. I could read prescriptions brought in by patients appropriately and dispense drugs. I also received drugs from bulk store, shelved and documented the number of each class of drugs including the injectables and consumables on the right tally cards.

The poison cupboard is also made available here, where drugs like diazepam, nitrazepam, tramadol, bromazepam etc., are kept.

 During my work period here at Drug Storage Unit, I was lectured on the various classes of drugs such as anti – hypertensive drugs, antitussive, anthelmintic, antimalaria etc., the various forms of drugs such as injections, suppositories, and creams. As time went by, I got familiar with the various classes of drugs, drug interactions, contraindication, and side effects.

* **IN - PATIENT PHARMACY**

After five weeks of working in the drug storage unit, in spent the remaining two weeks in the in – patient pharmacy. I was orientated on the activities and operations in the units. Here, pharmacist does not interact with the patients directly rather; a ward attendant comes to collect the drugs to be administered to the patients on admission. The in-patient pharmacy deals majorly with infusions and injections but also dispense drugs in some cases. Inventory are also taken in this units, I participated actively in this unit.

* 1. **RELATION OF WORK EXPERIENCE TO THEORY LEARNT IN SCHOOL.**

**With Respect to theory learnt school:**

* I was able to learn more about drug-drug interaction and drug-food interactions and side effects of drugs based on what I learnt in pharmacology.
* I was able to learn more on the pharmacokinetics of some drugs such as malaria drugs, anti-hypertensive drugs, anti-tussive, analgesics etc.
* I was also able to practically understand loading dose and maintenance dose
* I was able to counsel patients (under supervision) on the therapeutic effect of drugs in respect to dose, weight, age, etc. based on what I learnt in the general principles of pharmacology.
1. **OBSERVATIONS AND CONTRIBUTIONS**

**3.1 OBSERVATIONS**

 My first observation was the cognition of the difference between the “school environment and its activities” and the “Work Environment and Activities”, as it is a different ball game entirely and that you had to have business skills as well as intellectual skills. I observed that the pharmacy work environment is a place where one applies what he/she is being taught in class i.e. the practical aspect of my course of study was been put into action. I observed that I had the opportunity to learn while delivering services to the patients in relation to unusual clinical problems, uncommon drug interactions and side effects. It was a day to day learning experience for me.

 Also, pharmaceutical companies come around to present on their new development of drugs and indication of their products, their interactions, side effects and superiority over other products which helped to improve my learning and awareness of their products.

**3.2 CONTRIBUTIONS**

My contributions were shown in my work done and services as a SIWES student, by assisting in carrying out the desk work activities of the pharmacy such as assessing, dispensing prescriptions, and counseling patients under Supervision, and stock counting, aiding the work rate of the pharmacists thereby speeding up the job completion process and reducing the workload of the working Pharmacist in the units.

* 1. **CHALLENGES ENCOUNTERED DURING PERIOD OF TRAINING**

Some of the challenges encountered during my SIWES program are:

* During my first few weeks of my training, I found it hard to communicate with the pharmacists in some units as I am an introvert but with time, I was able to communicate with them and express my myself freely.
* Dealing with difficult patients in terms of attitude and impatience was a struggle for me. With a positive attitude towards work, I was able to deal with this.
* Shortage of drugs and Slow Supply of “out of stock” drugs and so in these cases, the patient was given some part of the drugs and ask to come back and get the rest when in stock or I had to write out the outstanding drugs for the patient so they could purchase outside..
* The pharmacists as well as I had limitations to correcting prescriptions when we noticed a mistake as some of the doctors were not cooperative.
* It took a long time for me to be engaged in some practices as pharmacists were to busy due to work load.
* Due to my location, my choice of placement limited me from fully practicalizing my course of study as they were no available pharmaceutical companies around.
1. **CONCLUSIONS AND RECOMMENDATION**

**4.1 CONCLUSION**

My Three months Training as a pharmacology Student at Prime Medical Consultant (Pharmacy Unit) was a huge success and a great time of acquisition of knowledge and skills. It was an eye-opening to the scope of hospital pharmacy practice including their roles, responsibility in the health care system in large. Through my training, I was able to appreciate my chosen course of study (pharmacology ), because I had the opportunity to blend some of the theoretical knowledge acquired from school with the practical hands-on application of knowledge gained here to intervene in Patient-related Clinical Problems that contributed in a way to my productivity in the organization. A wide variety of experiences was acquired with relation to Prescription Interpretations & Assessments and Dispensary, Drug interactions and contraindications, and Therapeutic effect of drugs in the body.

 I have also been able to appreciate the relationship between my course of study and other health-related disciplines in achieving a common goal of the Patient’s interest.

I have also been able to improve my communication and presentation skills and developed a good relationship with the patients, pharmacists, other medical practitioners and health workers.

**4.2 RECOMMENDATIONS**

**With Respect to Challenges stated above:**

* Drug supply chain should be closely monitored and regulated to ensure that essential drugs are not lacking from hospital pharmacies.
* Doctors and Pharmacist as well as other medical practitioner should be more open minded and learn to work together to ensure that knowledge is not limited and also ensure that the best health care service is being provided.
* More qualified Pharmacists should be employed in other to make work Easier, Faster and more Accurate.

**With Respect to the SIWES Training Scheme**

* I would recommend that SIWES created more awareness on how important this scheme is to students.
* I would also recommend that the SIWES officials visit the students often so as to monitor them and ensure that they are doing what they are supposed to.
1. **REFRENCES**
* **Students industrial work experience scheme guide to successful participation in SIWES.**