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**Research Article**


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Print 2231 – 3648  
ISSN Online 2231 – 3656

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Available Online at: [www.ijpir.com](http://www.ijpir.com)

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**International Journal of  
Pharmacy and Industrial  
Research**


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## Study On Hospital & Clinical Pharmacy Services In Various Hospitals In And Around Madanapalle

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### ABSTRACT

The aim of this study was to formulate and evaluate the oral tablet formulations of Ibuprofen fast oral disintegration and increasing the oral palatability by masking the bitter taste of the drug component. As the drug imparts a bitter taste it is optimised in aspect of sweeteners and flavours also obtained by coating adifferent polymer. The plan of work comprises of characterisation of API with pre formulation studiessuch as Angle of Repose, Bulk Density, Tapped Density, Compressibility Index, Hausner's Ratio, Particle Size Distribution, Drug excipient comparability study, Solubility study. This is followed by taste masking achieved by addition of sweeteners and flavours and coating with hydrophobic additives. The drug component then processed with the developmental parameters such as Direct compression, Dry granulation and Wet granulation. This part of the formulation is further scaled to identification and optimization of the disintegrants in the formulation. Once the stability parameters of the formulation are accessed, it is then proceeded with analytical process conducted in order to select and evaluate the best formulation among them.

**Keywords:**Hospital Pharmacy, Clinical Pharmacy, Clinical Services.

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### INTRODUCTION

Hospital pharmaciesare pharmacies usually found within the premises of a hospital. Hospital pharmacies usually stock a larger range of medications, including more specialized and investigational medications (medicines that are being studied, but have not yet been approved), than would be feasible in the community setting.<sup>(1-4)</sup>

The department or service in a hospital which is under the direction of a professionally competent, legally qualified pharmacist, and from which all medications are supplied to the nursing units and other services, where special prescriptions are filled for patients in the hospital, where prescriptions are filled for ambulatory patients and out-patients, where pharmaceuticals are manufactured in bulk, where narcotic and other prescribed drugs are

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dispensed, where injectable preparations should be prepared and sterilized, and where professional supplies are often stocked and dispensed.<sup>5-8</sup>

Clinical pharmacy is the branch of pharmacy in which pharmacists provide patient care that optimizes the use of medication and promotes health, wellness, and disease prevention. Clinical pharmacists care for patients in all health care settings but the clinical pharmacy movement initially began inside hospitals and clinics. Clinical pharmacists often work in collaboration with physicians, nurse practitioner, and other health care professionals. (9-12)

### **Aim**

To study on Hospital and Clinical pharmacy services in various Hospital in and around Madanapalle

### **Objectives**

To Access and report the Hospital and Clinical Pharmacy services in various Hospitals

### **Materials & Methods**

**Study design:** prospective observational and interventional study

**Study period:** January 2017 to April 2017(4 months)

**Study place:** Sanitorium hospital and Madanapalle surrounding hospitals

**Department:** Department of general medicine, male and female (inpatient)

## **MADANAPALLE GOVERNMENT HOSPITAL**

It is placed near to the RTC bus stand Madanapalle .In the hospital entry causality reception is there. It is well multi specialized hospital. Various kind of services they provided include outpatient service and in-patient service. We enter in the hospital take permission of superintendent of the hospital on reviewing the pharmacy services in that hospital. He gave permission for this purpose.

Then firstly we go the dispensing store of that hospital. In the store there is one senior pharmacist & one pharmacist was there. We ask her hospital pharmacy setup and services of

hospital pharmacy. She gave information of the services of hospital pharmacy.

In the Madanapalle govt. hospital there is ward services should be cleaned very well. Nurse plays an important role in ward (inpatient) services. Take care of patient also. All the information of patient kept in patient case sheet. In hospitals outpatient services through prescription by physician only dispensed the drugs and gave information of drugs to treat diseases.

It has 200 bed capacities. In Operation Theater pharmacy surgicals and drugs are provided by the dispensing store. They told that there is no involvement in the postmortem of patient. Social services are provided, camps like eye camps, blood camps, Arogya camps etc. They maintain records correctly and should be in computerized also.

### **Sanitorium hospital**

It is located in Arogyavaram, CTM Road, and Madanapalle.

In the hospital we consult the director of that hospital then take the permission from him. Then we went to the pharmacy. In pharmacy we ask how pharmacy setup, then they told there is no particular arrangement. But there one chief pharmacist and one pharmacist are present. Next, how you are receiving prescription? They told for outpatients directly receiving prescription of physicians and for inpatients through the nurses they will receive and dispense the drugs.

Next, pharmacists responsibilities are the drugs dispensed for patients should not be expired, storage of drugs according to their cautions and in case of emergency they suggest to the patients. Then the drug arrangement is not properly in that hospital. According to their convenient only they were arranged. They were not conducting the health programs and not participating in such type of programs.

For operation theatre pharmacy drugs and devices are passed directly from surgical room only. Whereas bedside and ward side pharmacy patient received drugs by nurses only. There is particular window for outpatients and inpatients. By one window only they dispense drugs. There is no outpatient department separately.

There is no storage of narcotic drugs, in case of emergency conditions they buy the drugs by physician license and dispensed to the patients.

And there is no adverse drug reaction monitoring. They maintain records in distribution of drugs.

For TB patients there is separate ward but drugs are stored in same pharmacy only.

### Emergency Hospital

It is located in CTM Road Madanapalle.

In the hospital we consult the pharmacist directly. In this we ask the pharmacist firstly how pharmacy setup is? They told

Supernatant officer



Chief senior pharmacist

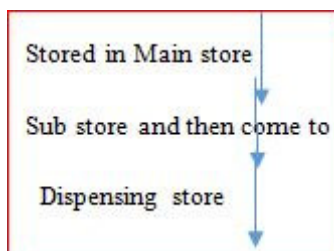


Pharmacist

In this pharmacy the drugs issued for both outpatients and inpatients. For outpatients through the prescription of physician they dispense the drugs, where for inpatients by the case sheet they dispensed. In this pharmacy

drugs are arranged in alphabetical order brand wisely. In this main store, sub store, and dispensing store are present.

From the distributors drugs are purchased



Pharmacist involved with departments like X – ray department, ward side pharmacy, bedside pharmacy and in laboratory for diagnostic purpose. Pharmacist don't involve in postmortem.

They are conducting health programs and participated. Surgical devices for operation theatre pharmacy dispensed from the surgical dispensing store. In this hospital, there is no storage of narcotic drugs, in case of emergency

conditions they buy the drugs by physician license and dispensed to the patients. And there is no adverse drug reaction monitoring. They maintain records in distribution of drugs. And there is out patient department separately.

### Suraksha specialty Hospital

It is located near RTC Bustand of Madanapalle, CTM Road.

Hospital pharmacy setup is

Chief senior pharmacist



2- Pharmacists

Pharmacists receiving prescription for inpatients as case-sheets and outpatient as prescription directed by physician. Drug arrangements in brand names alphabetically arranged.

Pharmacist involved with departments like X – ray department, ward side pharmacy, bedside

pharmacy and in laboratory for diagnostic purpose. Pharmacist don't involve in postmortem.

Surgical devices for operation theatre pharmacy are in sterilized and then dispensed. They involved in the health programs. In this hospital

ward pharmacy, bedside pharmacy and operation theatre pharmacy are there. For viral infections like swine flu, cholera treated using antibiotics.

For outpatients pharmacist suggest and gave information of disease and drugs to treat disease.

### Functions Of Hospital

Name of the hospital	Pharmacy setup	Drug arrangement	Health programs	Inpatient service	Outpatient service	Patient counseling	ADR Monitoring	Issue of narcotics
1. Arogyavaram Hospital	Supernatant, Chief senior pharmacist, Main store to dispensing store	No particular arrangement. Tuberculosis drugs are separately arranged.	RNT program and DOT System	Operation theatre pharmacy, ward pharmacy & bedside pharmacy. Nurse's play an important role on dispensing of drugs and surgicals.	Through the physician prescription drugs are dispensed by pharmacist	There is no outpatient counseling.	No ADR Monitoring	No
2. Madanapalle Government Hospital	Central medical store to main store. Main store to sub store. Sub store to dispensing store.	In alphabetical order brand wisely arranged	RNT DOT ICTC ART Arogya camp; Eye camp	Operation theatre pharmacy, ward pharmacy & bedside pharmacy. Nurse's play an important role on dispensing of drugs and surgicals.	Through the physician prescription drugs are dispensed by pharmacist	Outpatient and Inpatient counseling	No ADR monitoring	No narcotic drug issue and storage
3. Emergency Hospital	Main store to dispensing store	Brand wise arrangement	-	Operation theatre pharmacy, ward pharmacy & bedside pharmacy	Through the physician prescription drugs are dispensed by	There is no outpatient counseling	No ADR monitoring	No narcotic drug supply. In emergency condition

				side pharmacist pharmacy				s by physician license buy and dispense
				Nurse s play a import ant role on dispensin g of drugs and surgical.				
	Main store to dispensing store	Brand wise arrangement	Eye camp, blood camp.	Opera tion theatre pharmacy , ward pharmacy & bed side pharmacy	Throug h the physician prescriptio n drugs are dispensed by pharmacist	There is no outpatient counseling	No ADR monitoring	No narcotic drug supply
4. Suraksha specialty hospital				Nurse s play a important role on dispensin g of drugs and surgical.				
5. M.V.L Hospital	There is no separate pharmacy	-	-	-	Sugges t the drugs in prescriptio n	Outpat ient counseling	No ADR monitoring	No narcotic drugs supply

#### Functions Of Arogyavaram Hospital

Name of the hospital	Pharma cy Setup	Drug arrangemen t	Healt h program s	Inpati ent service	Outpat ient service	Patien t counselin g	ADR Monito ring	Issue of narcotic s
Arogyava ram Hospital (Sanitori um)	Superna tant, Chief senior pharmacist, pharmacist. Main store to dispensing store	No particular arrangement. Tubercul osis drugs are separately arranged.	RNT program and DOT System	Opera tion theatre pharmacy , ward pharmacy & bed side pharmacy . Nurse s play a	Throug h the physician prescriptio n drugs are dispensed by pharmacist	There is no outpatient counseling .	No ADR Monitoring	No

important  
role on  
dispensin  
g of drugs  
and  
surgical.

#### Functions Of Madanapalle Govt. Hospital

Name of the hospital	Pharmacy setup	Drug arrangement	Health programs	Inpatient service	Outpatient service	Patient counseling	ADR Monitoring	Issue of narcotics
<b>Madanapalle Govt. Hospital</b>	Central medical store to main store. Main store to sub store. Sub store to dispensing store.	In alphabetical order brand wisely arranged	RNT DOT ICTC ART Arogya camp; Eye camp	Operation theatre pharmacy, ward pharmacy & bed side pharmacy. Nurses play a important role on dispensing of drugs and surgical.	Through the physician prescription drugs are dispensed by pharmacist	Outpatient and Inpatient counseling	No ADR monitoring	No narcotic drug issue and storage

#### Functions Of Emergency Hospital

Name of the hospital	Pharmacy setup	Drug arrangement	Health programs	Inpatient service	Outpatient service	Patient counseling	ADR Monitoring	Issue of narcotics
<b>Emergency Hospital</b>	Main store to dispensing store	Brand wise arrangement	-	Operation theatre pharmacy, ward pharmacy & bed side pharmacy. Nurses play a important role on dispensing of drugs and	Through the physician prescription drugs are dispensed by pharmacist	There is no outpatient counseling	No ADR monitoring	No narcotic drug supply. In emergency conditions by physician license buy and dispense

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surgicals.

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### Functions Of Suraksha Speciality Hospital

Name of the hospital	Pharmacy setup	Drug arrangement	Health programs	Inpatient service	Outpatient service	Patient counseling	ADR Monitoring	Issue of narcotics
Suraksha specialty hospital	Main store to dispensing store	Brand wise arrangement	Eye camp, blood camp.	Operation theatre pharmacy, ward pharmacy & bed side pharmacy. Nurses play a important role on dispensing of drugs and surgicals.	Through the physician prescription drugs are dispensed by pharmacist	There is no outpatient counseling	No ADR monitoring	No narcotic drug supply

### Functions Of M.V.L Hospital

Name of the hospital	Pharmacy Setup	Drug arrangement	Health programs	Inpatient service	Outpatient service	Patient counseling	ADR Monitoring	Issue of narcotics
M.V.L Hospital	There is no separate pharmacy	-	-	-	Suggest the drugs in prescription	Outpatient counseling	No ADR monitoring	No narcotic drugs supply

## RESULTS AND DISCUSSION

In those five hospitals they are not doing any adverse drug reaction monitoring. So we suggest the hospital pharmacist the importance of monitoring ADR's.

Eg

- Over dose aspirin may cause gastro intestinal pain and bleeding
- Paracetamol may cause the hepatic impairment.
- Di phenyl hydantion metabolized in liver by para hydroxylation process in the presence hydroxylation enzymes. The patients have liver impairment drug should accumulated and it leads to toxic effects.

- In all hospitals there is an ambulatory service.
- For ambulance service also all the drugs and surgical are provided by hospital pharmacy.
- In this service one physician, clinical pharmacist, hospital pharmacists are there and give the service to people.
- Government hospitals are more preferable than private hospitals.
- Because of care of patients in government hospitals is similar to the private hospitals.

## CONCLUSION

Pharmacy is recognized as an essential hospital service in all the major hospitals. It is managed by professionally qualified

pharmacists. To assist in providing an adequate supply of such qualified hospital pharmacists. To provide the benefits of a qualified hospital pharmacist to patients and health care institutions, to the allied health professions, and to the profession of pharmacy. To assure a high quality of professional practice through the establishment and maintenance of standards of professional ethics, education, and attainments and through the promotion of economic welfare. drug information's.

Profession of clinical pharmacy will advance only through the primary goals of minimize the adverse effects, Safety therapeutic efficacy and quality patient care.

To ensure the patients maximum wellbeing and to play a meaningful role in the safe and rational use of drugs. Adverse drug reactions, management of drug policies, research and development programs, and

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